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DOT HS-805 718

NATIONAL CRASHWORTHINESS SEVERITY STUDY

Jack D. Baird
Wm. Tipton

Dynamic Science, Inc.
Western Operations
8531 E. Florence Avenue
Downey, Ca. 90240

ORIGINAL

COMPLETED
136

Contract No. DOT HS-6-01388
Contract Amt. $772,680

September 1980
FINAL REPORT

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Prepared For
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration,
Washington, D.C. 20590

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16. Abstract

This Final Report of the National Crash Severity Study covers the activities as performed by Dynamic Science, Inc., Western Operations, Los Angeles, California, for the U.S. Department of Transportation, National Highway Traffic Safety Administration.

The study involved the Central City region of Los Angeles, from which was selected all accidents involving a fatality or a hospitalization, 20% of those involving a transported/non-hospitalization, and 5% of all tow away accidents. A total of 1439 accident were sampled.

Dynamic Science received cooperation from the three involved Los Angeles Police Dept. Divisions and the California Highway Patrol, as well as from area hospitals and towing agencies. Quality Control was provided by Calspan, in addition to the in-house system Dynamic Science initiated.

Modifications to the original contract involved investigations of special studies and stolen vehicles, CTM changes, contract extensions, and the implementation of the Remote Data Entry System.

17. Key Words
Study area, Central Los Angeles, population 342,700. 575 miles City streets 26 miles Freeway, 162,000 Registered vehicles. 1439 Accidents investigated

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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

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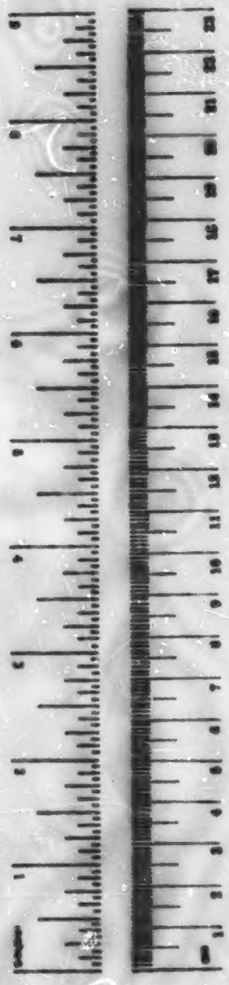
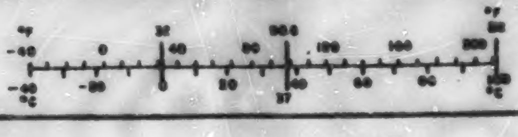
*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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INTRODUCTION

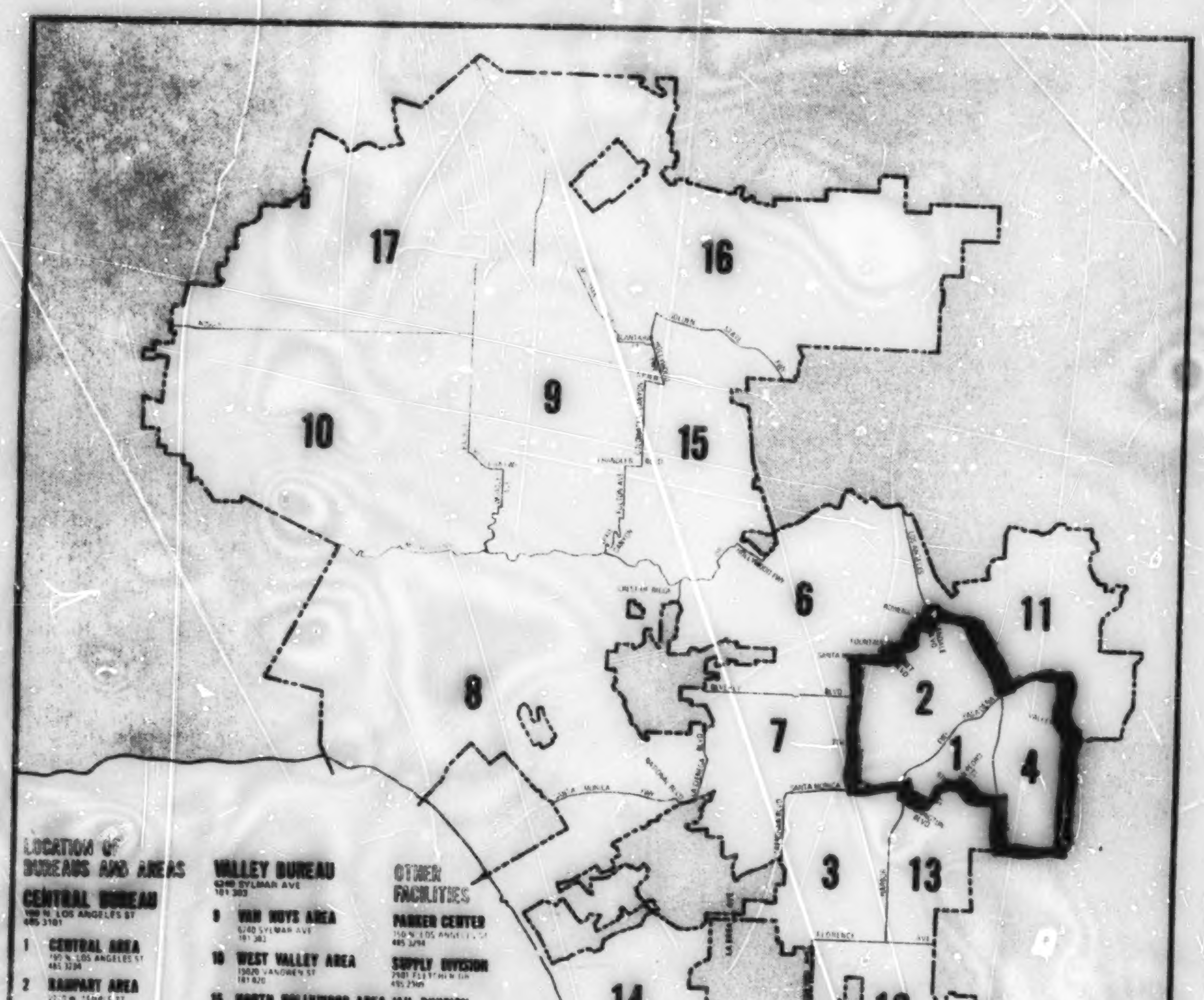
This Final Report covers the activities of the National Crash Severity Study, as performed by Dynamic Science, Inc., Western Operations, Los Angeles, California, for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in accordance with Contract No. DOT-HS-6-01388.

STUDY AREA DOCUMENTATION

The National Crash Severity Study (NCSS) Sampling area used in the study is the Central City area of Los Angeles, California. The City of Los Angeles is primarily an urban/suburban area covering an area of 465 square miles with a population of approximately 2,800,000 persons. Within this area, approximately 33,400 injury producing vehicle accidents occur each year. This average is based on a three year (1977, 78, 79) average. These statistics were obtained from the Los Angeles Police Department.

The sampling area for the NCSS study is defined geographically in terms of (3) three Los Angeles Police Department Divisions (1, 2, and 4) located in the Central City of Los Angeles, and areas controlled by the California Highway Patrol (CHP.) CHP is responsible for investigating accidents occurring on all freeways and state roads transiting the central city, encompassed within the LAPD Divisions 1, 2 and 4 (see attached).

The Central City sampling area consists of approximately 27.7 square miles. This area has a population of 342,700 (based on Oct. 1979 LAPD Statistics). There are 575 miles of surface streets and 26 miles of freeway within the study area. Within the sampling area, there are 162,000 registered vehicles and 216,000 licensed drivers. It should be noted that this urban area has a large daily commuter traffic flow, in and out daily, this obviously has a significant bearing on the area accident rate.



LOCATION OF BUREAUS AND AREAS

CENTRAL BUREAU
150 N. LOS ANGELES ST
485 3101

1 **CENTRAL AREA**
150 N. LOS ANGELES ST
485 3294

2 **RAMPART AREA**
2710 W. TEMPLE ST
485 4062

4 **HOLLENBECK AREA**
2111 E. FIRST ST
485 2942

11 **NORTHEAST AREA**
6045 YORK BLVD
485 2561

13 **NEWTON STREET AREA**
1354 NEWTON ST
485 5253

WEST BUREAU
[illegible] PURDUE AVE
182 466

6 **HOLLYWOOD AREA**
1358 WILCOX AVE
485 4302

7 **WILSHIRE AREA**
4861 VENICE BLVD
485 4022

8 **WEST LOS ANGELES AREA**
[illegible] PURDUE AVE
[illegible]

14 **VENICE AREA**
2312 CULVER BLVD
[illegible]

VALLEY BUREAU
6240 SYLMAR AVE
181 303

9 **VAN NUYS AREA**
6240 SYLMAR AVE
181 303

10 **WEST VALLEY AREA**
19020 VANOWEN ST
181 020

15 **NORTH HOLLYWOOD AREA**
11480 TIARA ST
181 022

16 **FOOTHILL AREA**
12760 OSBORNE ST
181 061

17 **DEVONSHIRE AREA**
10250 ETIWANDA AVE
[illegible]

SOUTH BUREAU
1546 W. SANTA BARBARA AVE
485 4251

3 **SOUTHWEST AREA**
1546 SANTA BARBARA AVE
485 2582

5 **HARBOR AREA**
2175 WILMINGTON & SAN PEDRO RD
183 303

12 **77TH STREET AREA**
235 W. 77TH ST
485 4167

OTHER FACILITIES

PARKER CENTER
150 N. LOS ANGELES ST
485 3294

SUPPLY DIVISION
2981 FLETCHER DR
485 2569

JAIL DIVISION
150 N. LOS ANGELES ST
485 2510

JUVENILE DIVISION
217 S. HILL
485 2837

VALLEY SERVICES DIVISION
6240 SYLMAR AVE
782 5125

MOTOR TRANSPORT DIVISION
151 N. SAN PEDRO
485 3495

POLICE ACADEMY
1880 N. ACADEMY DR
485 3114

HELICOPTER SECTION
1000 S. FLOWER
GLENDALE
485 2601

WATTS SUBSTATION
1531 E. 103RD ST
485 4141

AIRPORT SUBSTATION
485 5299

METROPOLITAN DIVISION
[illegible]

LOS ANGELES POLICE DEPARTMENT
AREA BOUNDARIES

Cartography and Visual Aids Unit
Management Services Division L.A.P.D.

There were 10,000 predicted towaway accidents per 18 months in the Central City area. 7,000 of these accidents occurred within LAPD jurisdiction and 3,000 within CHP jurisdiction. Table A-1 provides a breakdown of the injury producing auto accidents within the study area.

TABLE A-1 INJURY-PRODUCING AUTOMOBILE ACCIDENTS WITHIN THE STUDY AREA

Jurisdiction	Fatal	"A" Injuries	"B" Injuries	"C" Injuries
LAPD	64	514	2,811	3,039
CHP	18	150	840	972
Total	82	664	3,651	4,011

Based on a three-year average of 1977, 1978 and 1979 police data, "A" injuries are the most serious, and "C" minor injuries. These classifications were used to attain the size of the sample within the study area. It was assumed that "A" injuries would involve emergency room treatment and "C" injuries would be all others. Therefore, predicted accidents to be investigated are 100% of fatal (K) and "A" injuries, 25% of "B" accidents and 10% of "C" accidents.

Table A-II gives the numbers of accidents predicted to be investigated according to the sampling scheme, proposed in the RFP.

TABLE A-II ESTIMATED NUMBERS OF ACCIDENTS PREDICTED TO BE INVESTIGATED ACCORDING TO SAMPLING SCHEME

100 percent of fatals and "A" accidents (82+664)	=	746
25 percent of "B" accidents (3,651)	=	913
10 percent of "C" accidents (4,011)	=	401
Total Sample		2,060

Given the area population, commuter traffic, number of registered vehicle, licensed drivers, and accident history of the proposed sampling area, it can be stated that during the 18-month investigation period this area would experience approximately 10,000 towaway accidents of which 2,060 would meet the criteria for investigation under the sampling guidelines as set forth in the RFP.

Of these predicted 2,060 accidents:

- approximately 380 occurred in LAPD Central Division, #1
- approximately 778 occurred in LAPD Rampart Division, #2
- approximately 427 occurred in LAPD Hollenbeck Division, #4,
- approximately 475 occurred on the freeways under CHP jurisdiction.

TEAM STRUCTURE

Principal Investigator (P.I.) - Jack D. Baird - Responsibilities were to maintain the organization of the NCSS projects and maintain close working relationship with all of the LAPD Divisions and the CHP through out the contract period. Keep in close contact with the medical consultants and hospitals for which the accident victims were transported. Another responsibility was to keep in close contact with all of the Official Police Garages for which vehicles were towed and the investigators had to get into to inspect a vehicle. The P.I. also maintained a close working relationship with the NHTSA Contract Technical Monitor (CTM).

Co-Principal Investigator - Dr. Eugene Flamboe - Responsibility was to assist the P.I. in overall project operations. He maintained cognizance of fiscal expenditures relative to project milestones and goals and has assisted the P.I. in program evaluations, development of recommendations, and the writing and submission of reports.

Program Manager - Cruz Borrero (for the final Quarter) - Responsibilities of a program manager was to supervise the day-to-day investigative and reporting procedures during this final 3 months of the project. This includes stratification of accidents, assignment of cases, completion of investigation and field report forms, submission of accident cases to NHTSA in a timely manner, and assist in field investigation.

CRASH/RDE Operation - Roberto Kou - Responsibilities of the CRASH/RDE operator was to operate a terminal in which he could do a reconstruction of an accident and enter information about a particular accident into the terminal which NHTSA would be able to use for statistical purposes.

Medical Consultants - Dr. Jerry Harmon & Dr. Harriett McMurria- Responsibilities of the medical consultants were to go to all hospitals where accident victims had been transported, and collect any injury information pertaining to the victims auto accident, and maintain good rapport with these hospitals so they would cooperate and release the medical information, which historically is quite difficult to obtain.

Field Investigators - Responsibilities of the field investigators was to conduct driver and vehicle occupant interviews, inspect vehicles, fill out the forms and reconstruct the accident to determine causal factors as to whether it was a malfunction of the vehicle and if so what could be done to perhaps make that particular type vehicle safer. Under field investigators the following people not only were field investigators but had other responsibilities: Donald Woodburn-was also the Liasion with the Los Angeles Police Dept. for collecting police accident reports; William Tipton-Human Factors-interviews with the drivers and vehicle occupants; James Okazaki-as a part-time employee was the Environmental person acquiring all the scene data and photographs of the scene. Roberto Kou - became proficient in RDE and CRASH, computer recontruction of an accident, and entering information into a computer via a computer terminal for statistical information.

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SAMPLING PROCEDURE

Sampling Scheme - DSI collected a probability sample of police reported towaway accidents; i.e. at least one disabled vehicle towed from the scene, according to the police report within the study area. These towaways originally only included passenger vehicles. Due to a contract modification, Memorandum dated Jan. 24, 1979, the Sampling was revised to include trucks and vans. The Sampling criteria was also modified to include; DSI sampled daily 100% fatalities and hospitalisation; every 4th day (25%) DSI sampled transported, treated and released: every 10th day (10%) DSI sampled all others. Nov. 1976, NHTSA approved a modification of the original Sampling Scheme instead of sampling every 10th day, DSI started sampling every 5th day for all accidents ending with odd Document Record (DR) Police Report numbers.

This sampling activity was performed daily Monday-Friday, at the Central Audit Division of LAPD by DSI personnel. The selected cases from each of the 3 LAPD Divisions within the study area were collected and stratified for case selection and assignment.

The sampling procedure used with the CHP was performed on a modified system. CHP would list all accidents by location, date, time and injuries. DSI would then stratify these accidents and ensure that the accident met the selection criteria, prior to obtaining a copy of the accident report for case assignment.

The modified sampling plan distributed the work load more realistically and allowed for more effective data collection. April 1979 the new NCSS format was initiated. This included "light trucks and van". The sampling criteria was reduced from 25% transported and released to 20% transported and released and 10% towaway to 5% towaway. September 1979 Remote Data Entry (RDE) became operational. The weekly number of accidents selected in each stratum was nonestimatable due to seasonal patterns as well as weather (holiday and special events etc.)

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The following is a list of contract modifications:

Correct Performance Schedule
Special Studies
Change CTM to Mr. Toth
Additional work-Stolen Vehicles
Extended Contract with Cost to July 16, 1979
Completion date extended to July 16, 1980
Change CTM from Kistle to Daniels

Special Studies -

The primary objective of the Special Studies was the comparison of pre-crash and post-crash dimensions of vehicles to subjectively evaluate Vehicle Engineering Design in relationship to Occupant Injury Causation Mechanisms and to establish reliable for future design with an overall objective of reducing fatalities and severity of injuries.

In NCSS, 4 Special Studies were (Side Intrusion, Roof Intrusion, Steering Column Intrusion and Truck Underride) investigated.

This involved additional data to be collected during normal case investigation procedures, with the exception of the truck underride, which required investigation of those accidents only when knowledge of the accidents occurred, encompassing a larger geographical area than the normal NCSS study area. However, most truck underride cases were investigated within the study area and the remainder were acquired during normal case selection procedures.

Stolen Vehicle Modification

The objective was to determine the magnitude of involvement of stolen vehicles in accidents.

In 1978, 6 of the cases investigated involved stolen vehicles (during that time, a total of 6,867 vehicles were stolen within the study area); while in 1979, only 4 of the cases investigated involved stolen vehicles (7,153 vehicles were stolen within the study area during that year).

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DEVELOPMENT OF COOPERATIVE ARRANGEMENT

The following cognizant Law Enforcement officials and other officials have fully cooperated and committed their support to the program:

> The Los Angeles Police Divisions have supplied DSI with accident statistics, accident reports, assistance with on-scene investigations, and when necessary were able to supply vehicle VIN numbers and information on drivers (Ht., Wt., etc.) in cases where vehicles were not inspected and/or driver not interviewed for various reasons. When requested, they were able to supply photos where the police were on-scene and DSI was not.
>
> The California Highway Patrol provided DSI with accident statistics and accident reports when requested and on-scene photos when requested.

To acquire the cooperation with the following hospitals a letter was submitted to the Administrators of these hospitals from NHTSA and a follow-up letter from Dynamic Science, Inc. explaining the Safety Research Program that was involved, in hopes that DSI would be able to collect as much medical data on each of the occupants that were involved in auto accidents according to the criteria of the NCSS project (see attached). Listed below are the names of the hospitals who assisted Dynamic Science, Inc., in maintaining medical data.

Los Angeles County/USC Medical Center
Queen of Angeles
White Memorial Medical Center
Hollywood Presbyterian Medical Center
Childrens Hospital of Los Angeles
Los Angeles New Hospital
Alhambra Community Hospital
Glendale Adventist Medical Center
West Adams Community Hospital
Los Angeles County Medical Examiner.Coroner's
Office supplied the autopsy reports when needed

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INVESTIGATIVE PROCEDURES

DSI's procedures for the investigation of selected accidents involved the following:

1. Locating and inspection of involved vehicles
2. Locating and documentation of accident scenes with a completed accident diagram
3. The obtaining of official medical/autopsy records whichever was applicable
4. The obtaining of VIN and Driver License information when necessary
5. The obtaining of occupant(s) interview(s) via phone or in person
6. Upon completion of obtaining all required data, the reduction of that data to a final stage on NCSS forms
7. Internal Case review
8. Input into RDE (post April 1979) of the collected and corrected data
9. Submission to Calspan, Quality Control Contractor

INTERNAL CASE REVIEW

An in-house Quality Control System was devised to increase the quality of results of data collection and to reduce error rates per case as far as coding errors or missing data. An in-house evaluation matrix was developed for these error areas in past case submissions.

The Matrix consisted of breaking the variables down by form, and based upon the Quality Control performed in-house, each error corrected was judged accordingly and recorded on an appropriate form. From these forms, error trends by variable and investigator could evaluated and used to concentrate on those problem areas, rather than a broad general approach.

Codes utilized in this matrix are:

1. 'A' for missing data
2. 'B' for logic error
3. 'C' for judgement error

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As a result of using this Quality Control System there has been, on the average, a 72% error reduction per case. Further error reduction per case was achieved with the advent of the new NCSS coding manual and better definitions, and the RDE system. The RDE system provides an on-line edit, with consistency and range checks of data submitted to the file. The same persons involved with internal case review are also responsible for entering completed cases and medical updates into the RDE system. Minor errors are corrected at the time of input. However, in cases where the errors are numerous or a consistant error is made by the same investigator, the case or cases are returned to the investigator with explanations and/or corrected definitions. The investigator reviews the NCSS coding manual, makes the corrections and reviews the entire case before returning it to Quality Control. This method has proven very successful. In addition to the internal review procedures, DSI improved the record keeping and storage system which has enabled the project coordinated to monitor case progress, work-load and back-log more effectively. Missing rates for vehicle inspection, driver interviews, etc. are a function of the Quality Control Contractor.

PROBLEMS EXPERIENCED

Litigation-Drivers and/or owners of NCSS case vehicles are frequently advised by their attorneys or insurance company not to discuss the accident or allow their vehicle to be inspected until civil litigation or a settlement is completed. These litigation cases often go on for months and in some cases for years. Not only does this restrict data collection, but it also requires the investigators to spend an excessive amount of non-productive time. In the last two years, we have witnessed a faster settlement rate by insurance companies whereby the insured vehicles are picked up by the insurance companies from tow lots and are taken to a garage for repair or totaled out and sold to a wrecker. As a result, vehicle data is often reduced or completely unobtainable.

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Demographic Peculiarties-The study area encompasses a large Hispanic population, many of whom do not speak English and are Undocumented Workers. The area also encompasses a large Asian population. The language barrier creates a misunderstanding of the purpose and intent and therefore, are reluctant to cooperate. The Undocumented Workers often provide fictious names, addresses, and telephone numbers to police and hospital officials making it difficult or impossible to make contact, locate vehicles and obtain medical data from hospital records.

RESULTS

DSI investigated a total of 1439 accidents* under the NCSS program, with the following case acquisition by LAPD and CHP:

Central Division #1	274
Rampart Division #2	602
Hollenbeck Division #4	273
CHP	290
Total	1439

The Case Acquisition by Sample Design were as follows:

Fatal/Hospitalized (100%)	460
Transported (20%)	435
Other (5%)	544
Total	1439

DSI had an average monthly caseload of 30 cases, assigned to an average of 5 investigators, each resulting in an average caseload of 6 cases per investigator. These numbers could vary depending upon available investigators and number of cases actually sampled.

*The projected sample estimate of 2,060 accidents was based on the Los Angeles Police Department accident statistics. It included towaway as well as non-towaway accidents. Since The NCSS sampling scheme required that the vehicles be towaway, the projected 2,060 cases were not obtained.

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APPENDIX A

LETTER OF CREDENTIAL

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LETTER OF CREDENTIAL

The purpose of this letter of Credential is to identify Dynamic Science, Inc., as an authorized contractor of the U.S. Department of Transportation, National Highway Traffic Safety Administration.

The U.S. Department of Transportation is analyzing the consequences of automobile accidents, as authorized by law (15 U.S.C. 1395, 1401). The National Highway Traffic Safety Administration, in particular, is charged with increasing the safety of our highways for all citizens.

In Southern California, Dynamic Science, Inc., directed by Mr. Jack D. Baird, is conducting vehicle accident research for the U.S. Department of Transportation, National Highway Traffic Safety Administration. Dynamic Science is involved in safety research projects, the objectives of which are to reduce injuries and fatalities that result from vehicle accidents. The Dynamic Science research staff is involved in evaluating the performance of vehicles and safety features and correlating this data with the injuries of the vehicle occupants.

In order to accomplish these goals we sincerely request your assistance. Your cooperation with our research efforts is required to make the results of these studies comprehensive, accurate, timely, and meaningful. As an example, your information would assist us in determining the incidence of injury and non-injury in traffic accidents. Any information you provide will be used for highway safety research purposes only.

Please be assured that no personal identification of you, your vehicle, or the accident will be entered into any system of records or data bank.

Your assistance in this national safety effort to reduce injuries and fatalities in vehicle accidents would be sincerely appreciated.

Sincerely,

National Center for
Statistics & Analysis
Research & Development

APPENDIX B

NCSA LETTER SOLICITING HOSPITAL COOPERATION

NCSA LETTER SOLICITING HOSPITAL COOPERATION

Dear Mr.

The U.S. Department of Transportation is analyzing vehicle/pedestrian accidents, as authorized by law (U.S.C. 1395, 1401). The National Highway Traffic Safety Administration in particular, is charged with increasing the safety of our highways for all citizens.

In the Los Angeles area, Dynamic Science, Inc., directed by with Drs. and as staff medical advisers, is conducting research for the U.S. Department of Transportation, National Highway Traffic Safety Administration. Dynamic Science is involved in studies such as, the "National Crashworthiness Severity Study" and the "Pedestrian Injury Causation Parameters Study", in which the acquisition of injury and treatment data of invovled persons is required.

In order to accomplish the objectives of these nationally important studies, we direly need and are requesting your assistance. Your cooperation is requested to enable the Dynamic Science research staff to obtain the medical data, so that the results of these safety research studies are comprehensive, accurate, timely and meaningful.

All information received from your hospital will be used for highway safety research purposes only. The objectives of the research will provide for the reduction of injuries and fatalities in vehicle accidents. Total anonymity will be maintained, and identification of your hospital or the involved occupants will not be entered into any system of records or data banks.

After thorough consideration, we sincerely hope that you will cooperate in this national effort to enhance the safety of the American motoring public.

Sincerely,

National Center for
Statistics & Analysis
Research & Development

APPENDIX C

DSI LETTER SOLICITING HOSPITAL COOPERATION

16

DSI LETTER SOLICITING HOSPITAL COOPERATION

Dear Mr. Administrator:

Dynamic Science, Inc. (DSI) Los Angeles, is conducting Vehicle Safety Research Projects in Los Angeles. One of the major studies is the "National Crashworthiness Severity Study". The Safety Research Study is sponsored by the U.S. Department of Transportation, National Highway Traffic Safety Administration.

DSI is one of seven organizations in the United States, conducting similar projects using identical methodology. The other research organizations are in New York, Florida, Michigan, Indiana, Kentucky, and Texas. Conducting this research, DSI is responsible for sampling automobile accidents that occur in an urban environment. Los Angeles, because of its vast vehicle/human population, and the magnitude of accidents that occur daily is an "ideal", "real world" accident area, to acquire a large quantity of accident data.

To assist in accomplishing this project, DSI has been and is receiving outstanding cooperation from the Los Angeles Police Department, the Los Angeles City Fire Department and their Rescue Ambulance personnel, the California Highway Patrol, the Los Angeles County Medical Examinier/Coroner's office, and the Los Angeles Official Police Garages. To obtain injury and treatment data on these persons is of vital importance.

The basic objectives of the research is to determine the injury causation in vehicle/vehicle accidents. In order to accomplish this, data is collected from the involved vehicles, occupants, the accident scene, all data is then analyzed, with the ultimate objective being, to reduce injuries and fatalities in future vehicle accidents.

Please be assured that, in all aspects of the data collection, total annonymity of the parties involved, is preserved.

Also, please be assured that all time and materials, which should be minimal, will be provided by DSI to extract any medical data.

After thorough consideration of all aspects of this inquiry, it is sincerely requested that you assist in this national effort to reduce injuries and fatalities in vehicle accidents.

Sincerely,

NCSS Program

APPENDIX D

NCSS FORMS

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DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

CASE SUMMARY REPORT

NATIONAL CRASH SEVERITY STUDY: GENERAL ACCIDENT DATA

ACCIDENT IDENTIFICATION

1	___	UPDATE NUMBER
2	___	TEAM
3	___	YEAR
4-5	___ ___	MONTH
6-7	___ ___	DAY
8-10	___ ___ ___	SEQUENCE
11-13	0 0 0	GENERAL
14-16	___ ___ ___	COUNTY
17-20	___ ___ ___ ___	JURISDICTION
21-22	___ ___	REPORTED BY

NOTE: Where codes are listed, they may be circled or inserted on the lines provided throughout this form.

SAMPLE CONTROL

23 ___ ACCIDENT SEVERITY

1 Fatal
2 Injury - Overnite Hosp.
3 Injury - Transported
4 No Transport

24 ___ SAMPLING FRACTION

1	All Cases	(100%)
2	One of Four	(25%)
3	One of Ten	(10%)

REPORTS SUBMITTED

25	___	Police
26	___	Environmental
27	___	Off-Road Object
28	___	Vehicle
29	___	Side Structure
30	___	Pass. Comp. Intrusion
31	___	Seat Performance
32	___	Fire
33	___	Rollover
34	___	Interview
35	___	Medical
36	___	Surgical Procedures

NUMBER OF VEHICLES INVOLVED

37 ___ 1-7 = Total No. of Vehicles
8 = 8 or More
9 = Unknown

NUMBER OF PEOPLE INVOLVED

38-39	___ ___	Total	Actual No. = 01-97
40-41	___ ___	Injured	98 or More = 98 Unknown = 99
42-43	___ ___	Fatal	

NUMBER OF CASE VEHS. INVOLVED

44 ___ 1-7 = Actual No. of Case Vehs.
8 = 8 or More
9 = Unknown

NUMBER OF PEOPLE INVOLVED (CASE CARS)

45-46	___ ___	Total	Actual No. = 01-97
47-48	___ ___	Injured	98 or More = 98 Unknown = 99
49-50	___ ___	Fatal	

GENERAL DATA

51-52 ___ ___ TIME OF DAY

53 ___ ROAD CONDITION

1 Dry
2 Wet
3 Ice
4 Snow
5 Other Condition
9 Unknown

54 ___ INTERSECTION

0 None
1 3 leg T
2 3 leg Y
3 4 leg cross
4 4 leg oblique
5 Multileg
9 Unknown

55 ___ RURAL - URBAN

1 Rural
2 Urban
9 Unknown

ACCIDENT DESCRIPTION

56-57 ___ ___ TYPE OF IMPACT

00 No Impact
01 Car/Veh.: Head-On
02 Angle Frontal
03 Side
04 Angle Side
05 Rear
06 Car/Fixed Object: Front
07 Side
08 Rear
09 Car/Other Object
10 Principal Rollover
11 Sideswipe
12 Undercarriage
13 3 or More Vehicles - Chain
14 3 or More Vehicles - Other
99 Unknown

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DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
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NATIONAL CRASH SEVERITY STUDY: GENERAL ACCIDENT DATA (Page 2)

VEHICLE

58-63 VEHICLE MANEUVER

#1	#2	#3	VEHICLE MANEUVER
			Driver Controlled
01	01	01	Going Straight
02	02	02	Right Turn
03	03	03	Left Turn
04	04	04	U-Turn
05	05	05	Changing Lanes
06	06	06	Passing
07	07	07	Straight, Slowing
08	08	08	Backing
09	09	09	Stopped in Traffic
10	10	10	None: Double Parked
11	11	11	None: Parked, Not in Traffic
12	12	12	Parking
13	13	13	Leaving Parked Position
14	14	14	Starting in Roadway
15	15	15	Exiting Private Roadway
			Not Driver Controlled
21	21	21	Sliding, Leading with: Front
22	22	22	Right
23	23	23	Left
24	24	24	Rear
25	25	25	Rotating: Clockwise
26	26	26	Counterclockwise
97	97	97	Other
	98	98	Not Applicable
99	99	99	Unknown

64-66 APPROACH DESCRIPTION

#1	#2	#3	FUNCTIONAL CLASSIFICATION	
0	0	0	Arterial Highway	Principal Arterials
1	1	1	Expressway	
2	2	2	Freeway	
3	3	3	Minor Arterials - Major Street/Highway	
4	4	4	Collector - Through Street/Highway	
5	5	5	Local Street/Road	
7	7	7	Other	
8	8	8	Not Applicable	
9	9	9	Unknown	

VEHICLE

67-72 ALIGNMENT

#1	#2	#3	ALIGNMENT	
01	01	01	Level	Straight
02	02	02	Uphill	
03	03	03	Downhill	
04	04	04	Crest of Hill	
05	05	05	Bottom of Hill	
06	06	06	Level	Curve Right
07	07	07	Uphill	
08	08	08	Downhill	
09	09	09	Crest of Hill	
10	10	10	Bottom of Hill	
11	11	11	Level	Curve Left
12	12	12	Uphill	
13	13	13	Downhill	
14	14	14	Crest of Hill	
15	15	15	Bottom of Hill	
98	98	98	Not Applicable	
99	99	99	Unknown	

73-75 SURFACE TYPE

#1	#2	#3	SURFACE TYPE
1	1	1	P.C. Concrete
2	2	2	Bituminous
3	3	3	Brick, block
4	4	4	Slag, stone, shell, gravel
5	5	5	Other
6	6	6	Dirt
8	8	8	Not Applicable
9	9	9	Unknown

76-78 SPEED LIMIT

#1	#2	#3	SPEED LIMIT
0	0	0	None (parking lot or other off-road)
1	1	1	20 MPH (or less)
2	2	2	25
3	3	3	30
4	4	4	35
5	5	5	40
6	6	6	45
7	7	7	50
8	8	8	55
9	9	9	Unknown or NA

79 CRASH RECONSTRUCTION

1 Completed: Damage & Traj.
2 Damage Only
Unable to Complete:
3 Rollover
4 Vaulting
5 Other Non.-Horizontal Force
6 Insufficient Data
7 Skidding Sideways
8 Yielding Fixed Object
9 Other

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NATIONAL CRASH SEVERITY STUDY: VEHICLE DATA

(Complete this page for all vehicles in accident)

ACC. IDENTIFICATION

1	_	UPDATE NUMBER
2	_	TEAM
3	_	YEAR
4-5	_ _	MONTH
6-7	_ _	DAY
8-10	_ _ _	SEQUENCE
11-13	_ _ _	VEHICLE NUMBER
14-15	_ _	NO. OF VIN CHARAC.
16-22	_ _ _ _ _ _ _	VIN
23-27		MAKE/MODEL:
	_ _ _ _ _	Code
	______________	Write In
28-32	_ _ _ _ _	ODOMETER
33-34	_ _	MODEL YEAR (last two digits)

35-36 _ _ BODY STYLE:

AUTOMOBILES
01 Passenger Car
02 Stationwagon
03 Convertible
04 Car, Pickup Body

TRUCKS
05 Van - passenger
06 - cargo
07 Multipurpose
08 Pickup
09 Straight Truck
10 Tractor Trailer

OTHER
11 School Bus
12 Other Bus
13 Motorcycle
98 Other Body Style
99 Unknown

VEHICLE WEIGHT
(To nearest 100 lbs.)

37-39	_ _ _	Vehicle Weight
40-42	_ _ _	Occ. & Cargo Only

43 _ TOWING ANOTHER VEH.
1 Yes
2 No
9 Unknown

44-65 VEHICLE DAMAGE

	Object Contacted		CDC						Veh. #	Imp. #
(1)	44	45	46	47	48	49	50	51 52	53	54
(2)	55	56	57	58	59	60	61	62 63	64	65

(1)=Highest Severity (ΔV)

66 _ VEHICLE TOWED FROM SCENE
1 Yes
2 No
9 Unknown

67 _ SOURCE OF VEHICLE DATA
1 Inspection at repair or tow facility
2 Inspection at person's home
3 Inspection at scene
4 Not Inspected. (Photos or repair data)
5 Not Inspected. Reason: ____
____
9 Unknown

68 _ VEH. INSPECTION BY INVESTIGATOR
0 Not Inspected
1 Inspected on first visit
2-7 Actual number of locations visited (including follow-ups to same location)
8 8 or More
9 Unknown

69 _ APPLICABLE VEHICLE
1 Yes
2 No

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NATIONAL CRASH SEVERITY STUDY: VEHICLE DATA (Page 2)

(Complete this page only for applicable cars)

70 6 __ **FRONT SEAT TYPE**
1 Bench
2 Split-Bench
3 Bucket
8 Other
9 Unknown

71 __ **HEAD RESTRAINTS**
0 None
1 integral
2 Adjustable: Left Side Only
3 Right Side Only
4 Both Sides
5 Add-On: Left Side Only
6 Right Side Only
7 Both Sides
8 Other
9 Unknown

MEASUREMENT, TOP OF SEAT CUSHION TO TOP OF HEAD RESTRAINT (INCHES)
72-73 __ __ LF No Restraint = 00
74-75 __ __ RF Actual Measure = 01-97
Unknown = 99

SIDE STRUCTURE PERFORMANCE

76 __ **DOOR OPENING**
0 None
1 LF
2 RF
3 LR
4 RR
5 LF & RF
6 LF & LR
7 RF & RR
8 Other Combinations
9 Unknown

77 __ **LATCH OR HINGE DAMAGE**
0 None
1 LF
2 RF
3 LR
4 RR
5 LF & RF
6 LF & LR
7 RF & RR
8 Other Combinations
9 Unknown

78 __ **INTRUSION**
0 None
1 Steering Column
2 A-Pillar
3 Steering Column and A-Pillar
4 Side
5 Side, with sill override
6 Roof
7 Rear-end
8 Other Area Combinations
9 Unknown

COMMENTS (Describe latch damage and intrusion damage): ________________

____

____

____

____

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NATIONAL CRASH SEVERITY STUDY: OCCUPANT DATA

ACCIDENT IDENTIFICATION

1 _ UPDATE NUMBER
2 _ TEAM
3 _ YEAR
4-5 _ _ MONTH
6-7 _ _ DAY
8-10 _ _ _ SEQUENCE
11-13 _ _ _ OCCUPANT NUMBER

POSITION IN VEHICLE

14 _
1 Seat Area: Front
2 Second
3 Third
4 Other
9 Unknown

15 _
1 Location - On Seat: Left
2 Center
3 Right
4 Entire
5 On Floor: Left
6 Center
7 Right
8 Entire
9 Unknown

OCCUPANT DESCRIPTORS

16-17 _ _ AGE: 00 - less than one year
01-97 - actual age
98 - 98 and older
99 - Unknown

18-19 _ _ HEIGHT to 98 - actual height
(INCHES) 99 - Not Reported

20-22 _ _ _ WEIGHT to 998 - actual weight
(LBS.) 999 - Not Reported

23 _ SEX:
1 Male
2 Female
3 Female, pregnant
4 Female, Unk. if pregnant
9 Unknown

RESTRAINT USE

24-26 _ _ _

POLICE	INTERVIEWER	INVESTIGATOR	
0	0	0	Not Used
1	1	1	Lap & Torso
2	2	2	Lap Only
3	3	3	Torso Only
4	4	4	Air Cushion & Lap
5	5	5	Air Cushion
6	6	6	Passive Belt
7	7	7	Child Seat
8	8	8	No Restraint
9	9	9	Unknown

INJURY SEVERITY (POLICE RATING)

27 _
1 K Killed
2 A Incapacitated
3 B Not Incapacitated
4 C Possible Injury
5 O Not Injured
9 Unknown

EJECTION - ENTRAPMENT

28 _
0 None
1 Complete Ejection
2 Partial Ejection
3 Partial Ejection & Trapped
4 Ejection, Unknown Degree
5 Trapped
6 Other
9 Unknown

EJECTION AREA

29-30 _ _
No Ejection 00

Window	LF	RF	LR	RR	REAR	UNK.
Open	01	02	03	04	05	09
Closed, dam.	11	12	13	14	15	19
Unk. if open	21	22	23	24	25	29
Door	31	32	33	34	35	39

Windshield:
Bond Sep. 40
Not Sep. 41
Roof (convrt. or sunroof) 50
Other 60
Unk. Ej. Site 98
Unk. if Ej. 99

NCSS CLASSIFICATION

31 _
1 Fatal - Autopsy Obtained
2 Fatal - Medical Diagnosis
3 Fatal - Not Documented
4 Non-Fatal - Overnight Hospitalization
5 Non-Fatal - Transported & Released
6 Other Treatment
7 Treatment Unknown - Not transported
8 No Treatment - Not Transported
9 Unknown

PATIENT HISTORY
OUTPATIENT VISITS

32 _
0 = None
1-6 = Actual Number
7 = 7 or More
8 = Not Injured
9 = Unknown

ACTIVITY RESTRICTION (DAYS)

33-34 _ _ Bed Rest
35-36 _ _ Other Restriction
37-38 _ _ Work Days Lost
39-40 _ _ Days in Hospital

SEE MANUAL FOR CODES USED IN COLUMNS 33-40

NECK INJURY (Rear & Rear Corner Impacts, 4-8 o'clock)

41 _
Whiplash Symptoms Appeared:
0 = Immediately
1-6 = Actual Days Later
7 = 7 or More
8 = Not Applicable
9 = Unknown

INTERVIEW COMPLETION

42 _
0 No Interview
1 First phone call
2 Subsequent phone call
3 First mailing
4 Subsequent mailing
5 First visit
6 Subsequent visit
7 Other ____________
9 Unknown

	Inj. No.	Body Region	Aspect	Lesion	System/ Organ	AIS Severity	Injury Source	ICDA Rating
43-53	1	_ _	_	_	_	_	_ _	_ _ _._
54-64	2	_ _	_	_	_	_	_ _	_ _ _._
65-75	3	_ _	_	_	_	_	_ _	_ _ _._

USE WITH AIS CODES:
8 = Inj. Sev. Unk.
9 = Unk. if Inj.

76 OVERALL AIS _ 77-78 ISS _ _ 23

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DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY: COLLISION SEVERITY

ACCIDENT IDENTIFICATION

1	___	UPDATE NUMBER
2	___	TEAM
3	___	YEAR
4-5	___ ___	MONTH
6-7	___ ___	DAY
8-10	___ ___ ___	SEQUENCE
11-13	___ ___ ___	CARD NUMBER

VEHICLE NUMBER ___ 14

IMPACT WITH VEHICLE NO. ___ 15

IMPACT NUMBER ___ 16

IMPACT SPEED (MPH) ___ 17 ___ 18

DATA SOURCE (INPUT)		DELTA "V" MPH	TOTAL		LONG.			LATERAL		
Trajectory & Detailed Damge	1				+			+		
Trajectory & CDC Only	2	___ 19	___ 20	___ 21	- ___ 22	___ 23	___ 24	- ___ 25	___ 26	___ 27
Detailed Damage Only	3									
CDC Only	4				+			+		
Insufficient Data	9	___ 28	___ 29	___ 30	- ___ 31	___ 32	___ 33	- ___ 34	___ 35	___ 36

NOTE: Use Codes 1, 2 or 9 only in Column 19, and Codes 3, 4 or 9 only in Column 28.

RELATIVE VELOCITY:

Longitudinal + - ___ 37 ___ 38 ___ 39 ___ 40 MPH

Lateral + - ___ 41 ___ 42 ___ 43 ___ 44 MPH

VEHICLE NUMBER ___ 45

IMPACT WITH VEHICLE NO. ___ 46

IMPACT NO. ___ 47

IMPACT SPEED (MPH) ___ 48 ___ 49

DATA SOURCE (INPUT)		DELTA "V" MPH	TOTAL		LONG.			LATERAL		
Trajectory & Detailed Damage	1				+			+		
Trajectory & CDC Only	2	___ 50	___ 51	___ 52	- ___ 53	___ 54	___ 55	- ___ 56	___ 57	___ 58
Detailed Damage Only	3									
CDC Only	4				+			+		
Insufficient Data	9	___ 59	___ 60	___ 61	- ___ 62	___ 63	___ 64	- ___ 65	___ 66	___ 67

NOTE: Use Codes 1, 2 or 9 only in Column 50, and Codes 3, 4 or 9 only in Column 59.

RELATIVE VELOCITY:

Longitudinal + - ___ 68 ___ 69 ___ 70 ___ 71 MPH

Lateral + - ___ 72 ___ 73 ___ 74 ___ 75 MPH

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NATIONAL CRASH SEVERITY STUDY: CRASH PROGRAM SUMMARY

1 **ACCIDENT IDENTIFICATION**
1 UPDATE NUMBER ___
2 TEAM ___
3 YEAR ___
4-5 MONTH ___ ___
6-7 DAY ___ ___
8-10 SEQUENCE ___ ___ ___
11-13 CARD NUMBER ___ ___ ___
2 VEHICLE SIZE: #1___ #2___
3 CDC #1 ___ ___ ___ ___ ___ ___ ___
CDC #2 ___ ___ ___ ___ ___ ___ ___
4 WEIGHTS KNOWN
5 No - Go to 7
6 Yes - Wt. #1 ___ ___ ___ ___
Wt. #2 ___ ___ ___ ___
7 REST AND IMPACT POSITIONS KNOWN
8 No - Go to 34
9 Yes - Veh. 1 X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___
Veh. 2 X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___
10 IMPACT POSITIONS
Veh. 1 X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___
Veh. 2 X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___
11 DID VEH. 1 SLIDE SIDEWAYS
12 No - Go to 16
13 Yes - Did rotation cease prior to final rest?
14 No - Go to 16
15 Yes - Location
X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___
16 WAS VEH. 1 PATH CURVED?
17 No - Go to 19
18 Yes - Point on Path
X___ ___ ___.___
Y___ ___ ___.___
19 VEHICLE #1 ROTATED?
20 None- Go to 22
21 CW or CCW (circle one)
More than 360° Yes No (circle one)
22 DID VEH. 2 SLIDE SIDEWAYS?
23 No - Go to 25
24 Yes - Did rotation cease prior to final rest?
No - Go to 25
Yes - Location
X___ ___ ___.___
Y___ ___ ___.___
ψ___ ___ ___ ___

25 WAS VEH. 2 PATH CURVED?
26 No - Go to 28
27 Yes - Point on Path
X___ ___ ___.___
Y___ ___ ___.___
28 VEH. #2 ROTATED?
29 None - Go to 31
30 CW or CCW (circle one)
More than 360° Yes No (circle one)
31 COEFFICIENT OF FRICTION ___.___ ___
32 ROLLING RESISTANCE
33 1. Proportion Braking Each Wheel
Veh. 1 RF ___.___ ___
LF ___.___ ___
RR ___.___ ___
LR ___.___ ___
Veh. 2 RF ___.___ ___
LF ___.___ ___
RR ___.___ ___
LR ___.___ ___
OR
2. Longitudinal deceleration
Veh. 1 ___.___ ___
Veh. 2 ___.___ ___
34 ARE DAMAGE DIMENSIONS KNOWN?
35 No - Go to 37
36 Yes - Dimensions in Inches
Veh. 1 L ___ ___ ___ ___
C_1 ___ ___.___
C_2 ___ ___.___
C_3 ___ ___.___
C_4 ___ ___.___
C_5 ___ ___.___
C_6 ___ ___.___
D + - ___ ___ ___.___
Veh. 2 L ___ ___ ___.___
C_1 ___ ___.___
C_2 ___ ___.___
C_3 ___ ___.___
C_4 ___ ___.___
C_5 ___ ___.___
C_6 ___ ___.___
D + - ___ ___ ___.___
37 IMPROVED FORCE DIRECTIONS?
38 No - Program Completed
39 Yes - Angles from Straight
Veh. 1 + - ___ ___ ___ ___
Veh. 2 + - ___ ___ ___ ___

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NATIONAL CRASH SEVERITY STUDY

ENVIRONMENTAL - SCENE DATA ELEMENTS

Environmental data not collected. Reason? ____________________

ACCIDENT IDENTIFICATION				
TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

	Vehicle #1	Vehicle #2
FUNCTIONAL CLASSIFICATION OF ROADWAY		
Principal Arterials - Arterial Highway	0	0
Expressway	1	1
Freeway	2	2
Minor Arterials - Major Street/Highway	3	3
Collector - Through Street/Highway	4	4
Local Street/Road	5	5
Other	7	7
Not Applicable	8	8
Unknown	9	9
ALIGNMENT		
Straight - Level	01	01
- Uphill	02	02
- Downhill	03	03
- Crest of Hill	04	04
- Bottom of Hill	05	05
Curve Right - Level	06	06
- Uphill	07	07
- Downhill	08	08
- Crest of Hill	09	09
- Bottom of Hill	10	10
Curve Left - Level	11	11
- Uphill	12	12
- Downhill	13	13
- Crest of Hill	14	14
- Bottom of Hill	15	15
Not Applicable	98	98
Unknown	99	99
ROADWAY SURFACE TYPE		
Portland Cement Concrete	1	1
Bituminous Concrete	2	2
Brick, Block	3	3
Slag, Stone, Shell, Gravel	4	4
Other (Specify) ____________	5	5
Dirt	6	6
Not Applicable	8	8
Unknown	9	9
POSTED SPEED LIMIT (MPH)	__ __	__ __

Not Applicable = 98

Unknown = 99

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SURFACE DATA

	Vehicle #1	Vehicle #2
PAVEMENT SURFACE CONDITION		
New	1	1
Traveled	2	2
Travel Polished	3	3
Worn	4	4
Other	5	5
Not Applicable	8	8
Unknown	9	9
SHOULDER SURFACE TYPE (IF USED)		
No Shoulder	1	1
Paved	2	2
Sodded	3	3
Gravel	4	4
Dirt	5	5
Other	6	6
Not Applicable	8	8
Unknown	9	9
COEFFICIENT OF FRICTION (List in Actual Sequence)	.___ ___	.___ ___
(Source of Information)	.___ ___	.___ ___
Not Applicable 98	.___ ___	.___ ___
Unknown 99	.___ ___	.___ ___
	.___ ___	.___ ___

IF THE ACCIDENT INVOLVES COLLISION WITH ROADSIDE FIXED OBJECT/STRUCTURE, COMPLETE THE FOLLOWING:

	Vehicle #1	Vehicle #2
EDGE CONDITION (Between nearest traffic lane and object struck)		
No Curb or Shoulder	0	0
Curb but No Shoulder	1	1
Shoulder but No Curb	2	2
Both Curb and Shoulder	3	3
Not Applicable	8	8
Unknown	9	9
HEIGHT OF CURB (Record height in inches)	___ ___	___ ___
00 No Curb		
98 Not Applicable		
99 Unknown		
SHOULDER WIDTH (Record width in feet)	___ ___	___ ___
00 No Shoulder		
98 Not Applicable		
99 Unknown		
LATERAL CLEARANCE (Record in feet) Perpendicular distance from pavement edge to struck object	___ ___	___ ___
98 Not Applicable		
99 Unknown		

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ROADSIDE STRUCTURE/OBJECTS CONTACTED		Vehicle #1	Vehicle #2
Guard Rail	Restraining/Guiding Device	01	01
Bridge Rail		02	02
Median Barrier		03	03
Pole		04	04
Impact Attenuator		05	05
Bridge Structures		06	06
Trees		07	07
Ditch/Canal		08	08
Fence		09	09
Embankments		10	10
Culvert		11	11
Building		12	12
Other		13	13
Not Applicable		98	98
Unknown		99	99

NOTE: IF ITEMS 01 TO 05 ABOVE ARE CODED, COMPLETE THE CORRESPONDING SECTION BELOW.

01 **Highway Guard Rail** From the guard rail systems below, select the system which was in use at the point of collision.

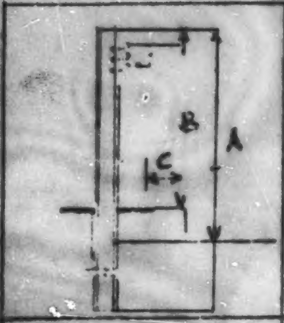
	Vehicle #1	Vehicle #2
8 Other (specify) ________________	___	___
9 Unknown		

Distance (inches):

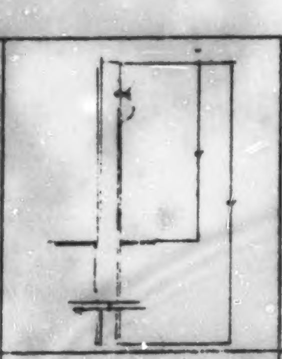
	Vehicle #1	Vehicle #2
Above Roadway (A)	___ ___	___ ___
Above Curb or Ground (B)	___ ___	___ ___
From Curb or Pavement Edge (C)	___ ___	___ ___

Protecting:

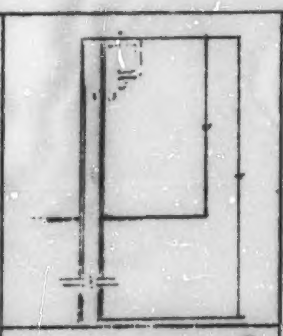
Embankment	1
Fixed Object	2
Drop Off	3
Transition to Bridge	4
Other	5
Not Applicable	8
Unknown	9



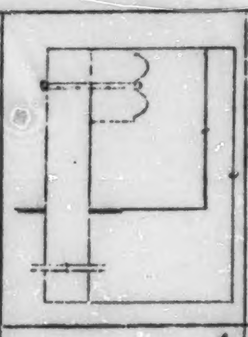
1 CABLE



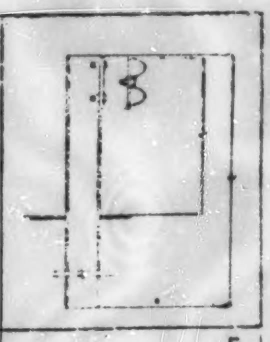
2 "W" Beam (Steel Weak Post)



3 BOX BEAM



4 BLOCKED OUT "W" BM (WOOD POST)



5 BLOCKED OUT "W" BEAM (STEEL POST)

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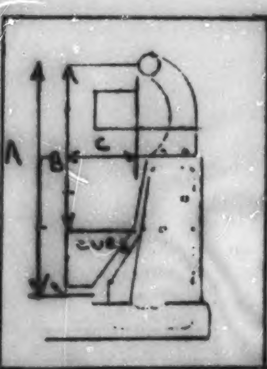
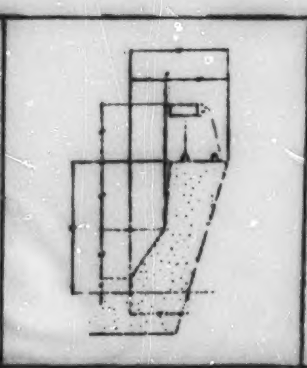
02 **Bridge Railing** From the bridge rail systems below, select the system which was in use at the point of collision.

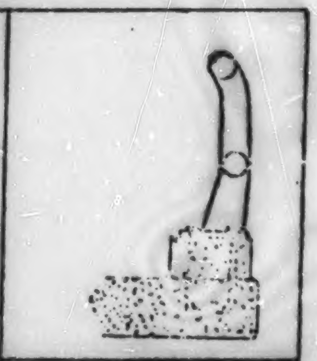
	Vehicle #1	Vehicle #2
8 Other	___	___
9 Unknown		
Distance (Inches)		
Above Roadway (A)	___ ___	___ ___
Above Curb (B)	___ ___	___ ___
From Curb or Pavement Edge (C)	___ ___	___ ___



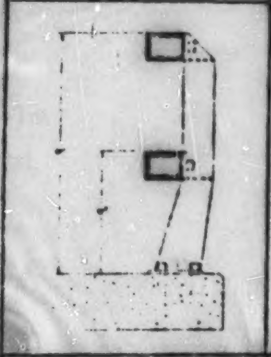
BR-1 1



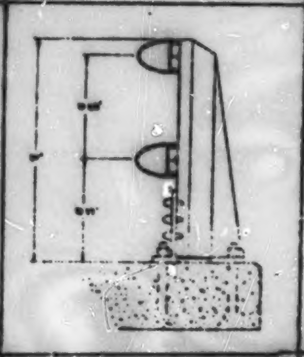
BR-2 2



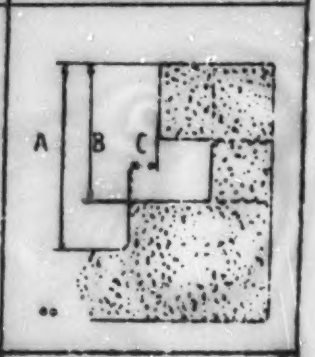
ALLOY POST & RAIL 3



YBR (b) 4



YBR-(a) 5



CONCRETE RAIL & POST 6

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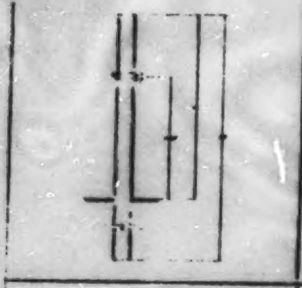
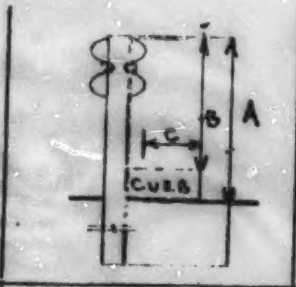
03 Median Barrier From the median barrier systems below, select the system which was in use at the point of collision.

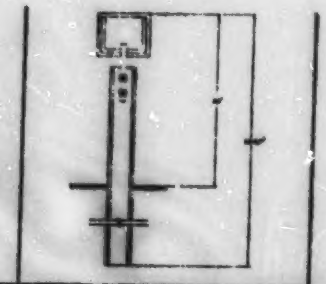
	Vehicle #1	Vehicle #2
8 Other		
9 Unknown	___	___
Distance (Inches)		
Above Roadway (A)	___ ___	___ ___
Above Curb (B)	___ ___	___ ___
From Curb or Pavement Edge (C)	___ ___	___ ___



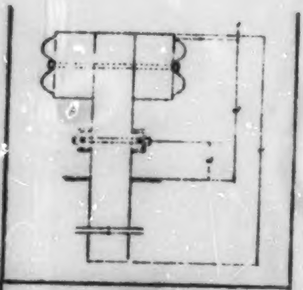
MB1
CABLE



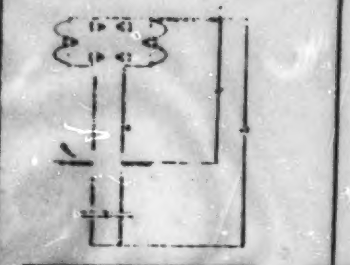
MB2
"W" BEAM



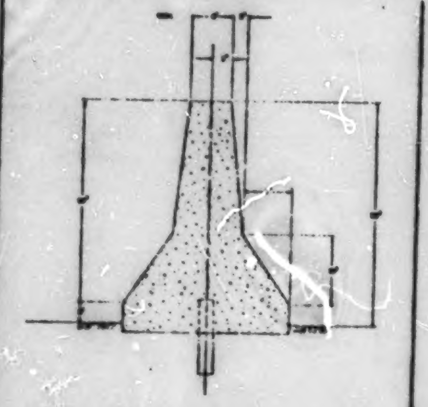
MB3
BOX BEAM



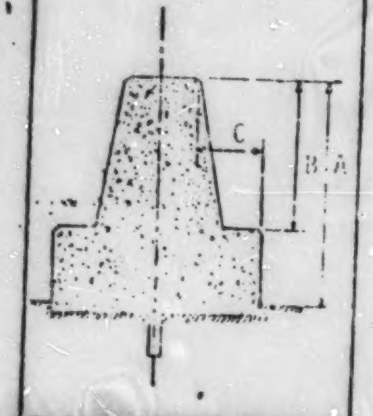
MB4W
BLOCKED-OUT "W" BEAM
(Wood Post)



MB4S
BLOCKED-OUT "W" BEAM
(Steel Post)



CONCRETE BARRIER



CONCRETE BARRIER 7

30

[illegible] BEST AVAILABLE COPY

04 Roadside Structures/Objects

If a pole was struck, complete this section.

TYPE OF POLE	V#1	V#2
Utility	1	1
Luminaire	2	2
Sign	3	3
Traffic Control Signal	4	4
Other	5	5
Unknown	9	9

POLE PROTECTED BY BARRIER/CUSHION	V#1	V#2
Yes	1	1
No	2	2
Unknown	9	9

POLE MATERIAL	V#1	V#2
Concrete	1	1
Wood	2	2
Steel	3	3
Aluminum	4	4
Other	5	5
Unknown	9	9

POLE CROSS SECTION SHAPE	V#1	V#2
Square	1	1
Rectangular	2	2
Circular	3	3
I-Beam	4	4
Other	5	5
Unknown	9	9

HEIGHT OF CONCRETE BASE OR BASE MOUNTING SURFACE ABOVE GROUND LINE (INCHES)

___ ___ ___ ___

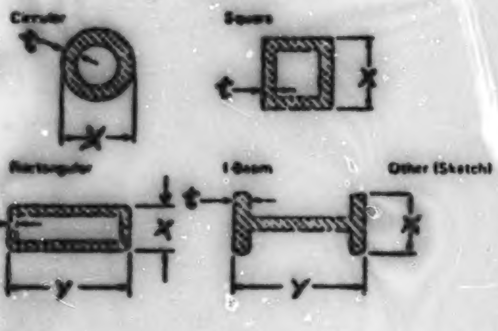
0 At or Below Ground Line
9 Unknown

BREAKAWAY POLE	V#1	V#2
Yes	1	1
No	2	2
Unknown	9	9

TYPE OF BREAKAWAY BASE	V#1	V#2
Slip Base (Steel)	1	1
Frangible Base (Castaluminum)	2	2
Progressive Shear (Galvanized Steel)	3	3
Progressive Shear (Stainless Steel)	4	4
Other	5	5
Unknown	9	9

DIMENSIONS OF POLE AT BASE (INCHES)

NA 98 Unk. 99



	Vehicle #1	Vehicle #2
x Dim.	___ ___	___ ___
y Dim.	___ ___	___ ___
t Dim.	___ ___	___ ___

05 IMPACT ATTENUATORS

If Impact Attenuator was struck, complete the following:

TYPE OF ATTENUATOR	Vehicle #1	Vehicle #2
Fitch Inertial Barrier	1	1
Torshok Barrier	2	2
Hi-Dro Cushion Crash Barrier	3	3
Modular Crash Cushion (Steel Drum)	4	4
Vermiculite Concrete Barrier	5	5
Van Zelm Dragnet System	6	6
Goodyear Automobile Tire Cushion	7	7
Other	8	8
Unknown	9	9
BARRIER DEFORMATION DISTANCE (FEET)	___ ___	___ ___

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PHYSICAL EVIDENCE SCHEMATIC

CHECKLIST OF DATA ELEMENTS TO BE REPORTED

Point of Impact (POI) as defined by cg position and heading angle or individual wheel positions for each vehicle.

Final Rest Position (FRP) of each vehicle as defined above.

Point on all trajectories which are curved paths between POI and FRP.

Tire Marks

a) length of RF, LF, RR, and LR during pre-crash and crash phases.

b) relative spacing between tire marks on the same side of the vehicle in rotational skid patterns - if rotation ceases prior to FRP, specify location with vehicle cg position and heading angle or individual wheel positions.

Nontire Marks including scratching, abrading, gouging, etc.

Location of coefficient of friction boundaries.

Location and nature of objects struck including pertinent damage descriptions.

Debris distribution pattern.

TEAM	YEAR	MONTH	DAY	SEQUENCE
_	_ _	_ _	_ _ _	_ _ _

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
ENVIRONMENTAL - SCENE DATA ELEMENTS

Environmental data not collected. Reason? ____________________

54 **INTERSECTION**
0 None
1 3 leg T
2 3 leg Y
3 4 leg cross
4 4 leg oblique
5 Multileg
9 Unknown

55 **RURAL - URBAN**
1 Rural
2 Urban
9 Unknown

		Vehicle #1	Vehicle #2	Vehicle #3
64-66	**FUNCTIONAL CLASSIFICATION OF ROADWAY**			
	Principal Arterials - Arterial Highway	0	0	0
	Expressway	1	1	1
	Freeway	2	2	2
	Minor Arterials - Major Street/Highway	3	3	3
	Collector - Through Street/Highway	4	4	4
	Local Street/Road	5	5	5
	Other	7	7	7
	Not Applicable	8	8	8
	Unknown	9	9	9
67-72	**ALIGNMENT**			
	Straight - Level	01	01	01
	- Uphill	02	02	02
	- Downhill	03	03	03
	- Crest of Hill	04	04	04
	- Bottom of Hill	05	05	05
	Curve Right - Level	06	06	06
	- Uphill	07	07	07
	- Downhill	08	08	08
	- Crest of Hill	09	09	09
	- Bottom of Hill	10	10	10
	Curve Left - Level	11	11	11
	- Uphill	12	12	12
	- Downhill	13	13	13
	- Crest of Hill	14	14	14
	- Bottom of Hill	15	15	15
	Not Applicable	98	98	98
	Unknown	99	99	99

NOTE: COLUMN NUMBERS FROM THE SUMMARY ACCIDENT DATA FORM ARE LISTED ON LEFT IN THIS FORM TO SIMPLIFY TRANSFER OF DATA.

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NS Form 367 (Field)

NATIONAL CRASH SEVERITY STUDY
ENVIRONMENTAL - SCENE DATA ELEMENTS

		Vehicle #1	Vehicle #2	Vehicle #3
73-75	**ROADWAY SURFACE TYPE**			
	Portland Cement Concrete	1	1	1
	Bituminous Concrete	2	2	2
	Brick, Block	3	3	3
	Slag, Stone, Shell, Gravel	4	4	4
	Other (Specify) ____________________	5	5	5
	Dirt	6	6	6
	Not Applicable	8	8	8
	Unknown	9	9	9
76-78	**POSTED SPEED LIMIT (MPH)**	__ __	__ __	__ __
	Not Applicable = 98			
	Unknown = 99			
	SURFACE DATA			
	PAVEMENT SURFACE CONDITION			
	New	1	1	1
	Traveled	2	2	2
	Travel Polished	3	3	3
	Worn	4	4	4
	Other	5	5	5
	Not Applicable	8	8	8
	Unknown	9	9	9
	SHOULDER SURFACE TYPE (IF USED)			
	No Shoulder	1	1	1
	Paved	2	2	2
	Sodded	3	3	3
	Gravel	4	4	4
	Dirt	5	5	5
	Other	6	6	6
	Not Applicable	8	8	8
	Unknown	9	9	9
	COEFFICIENT OF FRICTION (List in Actual Sequence)	.__ __	.__ __	.__ __
		.__ __	.__ __	.__ __
	(Source of Information: ______________)	.__ __	.__ __	.__ __
	Not Applicable 98	.__ __	.__ __	.__ __
	Unknown 99	.__ __	.__ __	.__ __

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U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
ENVIRONMENTAL - SCENE DATA ELEMENTS

IF THE ACCIDENT INVOLVES COLLISION WITH ROADSIDE FIXED OBJECT/STRUCTURE, COMPLETE THE FOLLOWING:

	Vehicle #1	Vehicle #2	Vehicle #3
EDGE CONDITION (Between nearest traffic lane and object struck)			
No Curb or Shoulder	0	0	0
Curb but No Shoulder	1	1	1
Shoulder but No Curb	2	2	2
Both Curb and Shoulder	3	3	3
Not Applicable	8	8	8
Unknown	9	9	9
HEIGHT OF CURB (Record height in inches) 00 No Curb 98 Not Applicable 99 Unknown	__ __	__ __	__ __
SHOULDER WIDTH (Record width in feet) 00 No Shoulder 98 Not Applicable 99 Unknown	__ __	__ __	__ __
LATERAL CLEARANCE (Record in feet) Perpendicular distance from pavement edge to struck object 98 Not Applicable 99 Unknown	__ __	__ __	__ __

	Vehicle #1	Vehicle #2	Vehicle #3
ROADSIDE STRUCTURE/OBJECTS CONTACTED			
Guard Rail } Restraining/Guiding Device	01	01	01
Bridge Rail } Restraining/Guiding Device	02	02	02
Median Barrier } Restraining/Guiding Device	03	03	03
Pole	04	04	04
Impact Attenuator	05	05	05
Bridge Structures	06	06	06
Trees	07	07	07
Ditch/Canal	08	08	08
Fence	09	09	09
Embankments	10	10	10
Culvert	11	11	11
Building	12	12	12
Other	13	13	13
Not Applicable	98	98	98
Unknown	99	99	99

NOTE: IF ITEMS 01 TO 05 ABOVE ARE CODED, COMPLETE THE OBJECT CONTACTED PAGE WITH THE CORRESPONDING E1 TO E5 NUMBER AND CHECK BELOW.

Check supplements submitted: E1 ☐ E2 ☐ E3 ☐ E4 ☐ E5 ☐

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PHYSICAL EVIDENCE SCHEMATIC

CHECKLIST OF DATA ELEMENTS TO BE REPORTED

Point of Impact (POI) as defined by cg position and heading angle or individual wheel positions for each vehicle.

Final Rest Position (FRP) of each vehicle as defined above.

Point on all trajectories which are curved paths between POI and FRP.

Tire Marks
a) length of RF, LF, RR, and LR during pre-crash and crash phases.
b) relative spacing between tire marks on the same side of the vehicle in rotational skid patterns - if rotation ceases prior to FRP, specify location with vehicle cg position and heading angle or individual wheel positions.

Nontire Marks including scratching, abrading, gouging, etc.

Location of coefficient of friction boundaries.

Location and nature of objects struck including pertinent damage descriptions.

Debris distribution pattern.

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E1

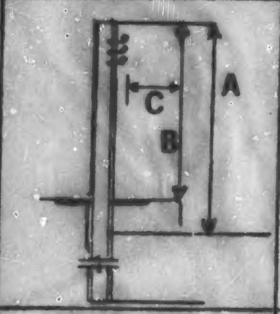
TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

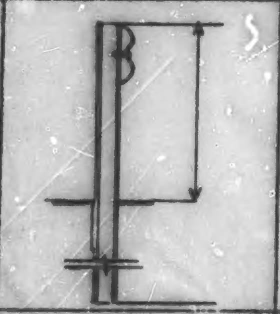
NATIONAL CRASH SEVERITY STUDY
ROADSIDE OBJECT FORM SUPPLEMENT

Highway Guard Rail From the guard rail systems below, select the system which was in use at the point of collision.

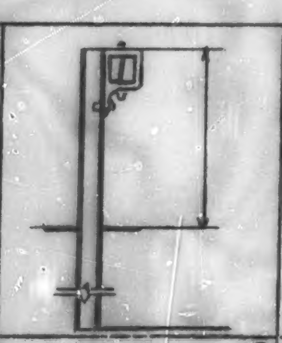
	Vehicle #1	Vehicle #2	Vehicle #3
8 Other (specify) ____________ 9 Unknown	__	__	__
Distance (inches):			
Above Roadway (A)	____	____	____
Above Curb or Ground (B)	____	____	____
From Curb or Pavement Edge (C)	____	____	____
Protecting:			
Embankment	1	1	1
Fixed Object	2	2	2
Drop Off	3	3	3
Transition to Bridge	4	4	4
Other	5	5	5
Not Applicable	8	8	8
Unknown	9	9	9



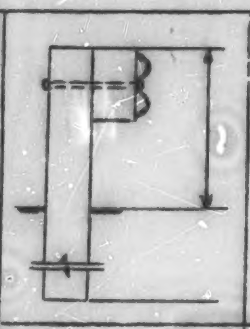
1 CABLE



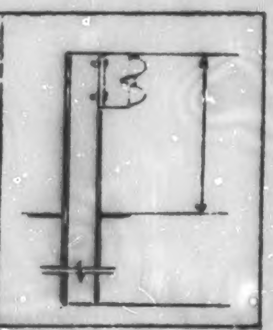
2 "W" BEAM (Steel Weak Post)



3 BOX BEAM



4 BLOCKED-OUT "W" BEAM (Wood Post)



5 BLOCKED-OUT "W" BEAM (Steel Post)

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E2

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TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

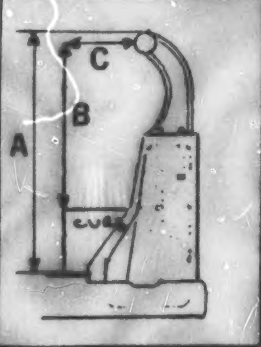
DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY

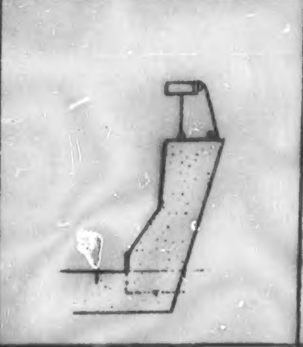
ROADSIDE OBJECT FORM SUPPLEMENT

Bridge Railing From the bridge rail systems below, select the system which was in use at the point of collision.

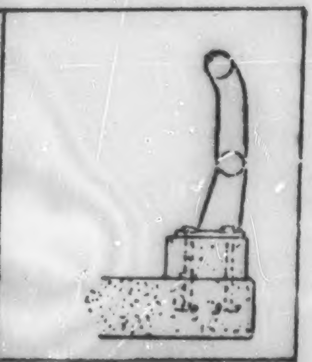
	Vehicle #1	Vehicle #2	Vehicle #3
8 Other (specify) ______________	___	___	___
9 Unknown			
Distance (Inches)			
Above Roadway (A)	_____	_____	_____
Above Curb (B)	_____	_____	_____
From Curb or Pavement Edge (C)	_____	_____	_____



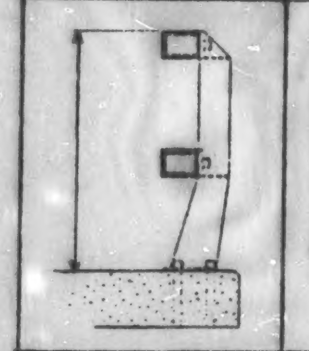
BR-1 1



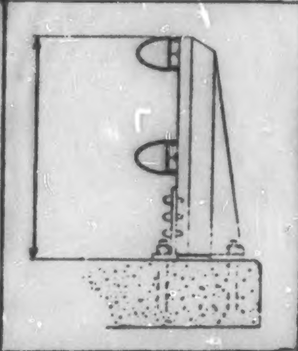
BR-2 2



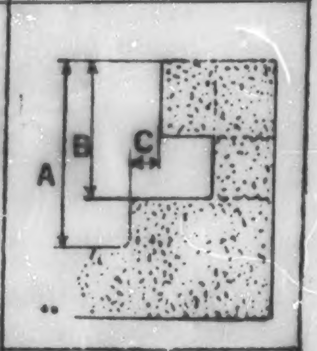
ALLOY POST
& RAIL 3



YBR-(b) 4



YBR-(e) 5



CONCRETE RAIL
& POST 6

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E3

TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

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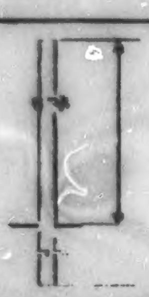
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
ROADSIDE OBJECT FORM SUPPLEMENT

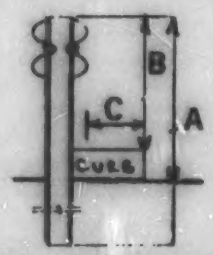
Median Barrier From the median barrier systems below, select the system which was in use at the point of collision.

8 Other (specify) ________________
9 Unknown

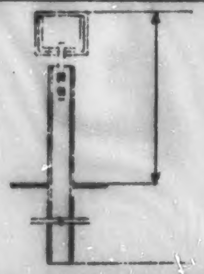
	Vehicle #1	Vehicle #2	Vehicle #3
Median Barrier	__	__	__
Distance (Inches)			
Above Roadway (A)	____	____	____
Above Curb (B)	____	____	____
From Curb or Pavement Edge (C)	____	____	____



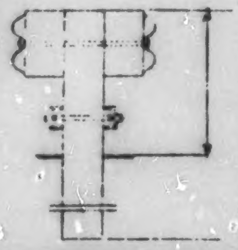
MB1
CABLE 1



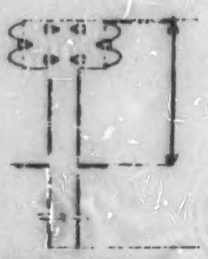
MB2
"W" BEAM 2



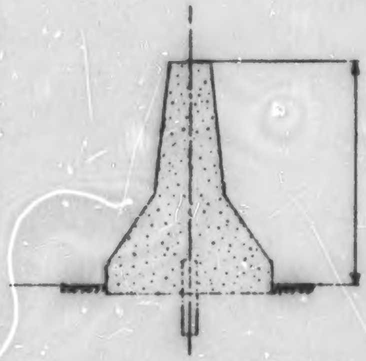
MB3
BOX BEAM 3



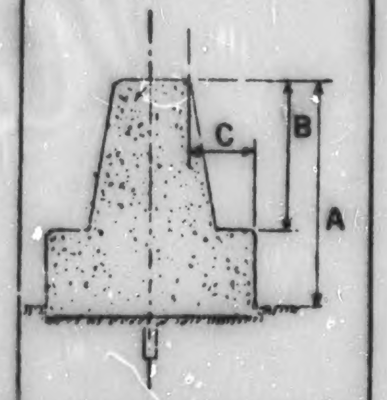
MB4W
BLOCKED-OUT "W"
BEAM (Wood Post) 4



MB4S
BLOCKED-OUT "W"
BEAM (Steel Post) 5



CONCRETE BARRIER 6



CONCRETE BARRIER 7

HS Form 367 (Field)
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E4

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TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
ROADSIDE OBJECT FORM SUPPLEMENT

Pole If a pole was struck, complete this section.

TYPE OF POLE*	V#1	V#2	V#3
Utility	1	1	1
Luminaire	2	2	2
Sign	3	3	3
Traffic Control Signal	4	4	4
Other	8	8	8
Unknown	9	9	9

*If damaged, describe on back of page: if broken, height of break; if moved, distance moved and condition of ground

POLE PROTECTED BY BARRIER/CUSHION	V#1	V#2	V#3
Yes	1	1	1
No	2	2	2
Unknown	9	9	9

POLE MATERIAL	V#1	V#2	V#3
Concrete	1	1	1
Wood	2	2	2
Steel	3	3	3
Aluminum	4	4	4
Other	8	8	8
Unknown	9	9	9

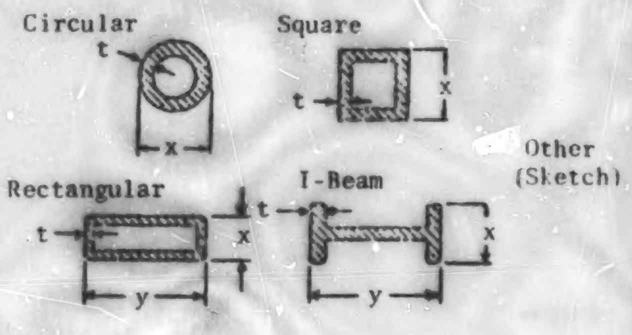
POLE CROSS SECTION SHAPE	V#1	V#2	V#3
Square	1	1	1
Rectangular	2	2	2
Circular	3	3	3
I-Beam	4	4	4
Other	8	8	8
Unknown	9	9	9

HEIGHT OF CONCRETE BASE OR BASE MOUNTING SURFACE ABOVE GROUND LINE (INCHES)	V#1	V#2	V#3
00 At or Below Ground Line 99 Unknown	__ __	__ __	__ __

BREAKAWAY POLE	V#1	V#2	V#3
Yes	1	1	1
No	2	2	2
Unknown	9	9	9

TYPE OF BREAKAWAY BASE	V#1	V#2	V#3
Slip Base (Steel)	1	1	1
Frangible Base (Cast Aluminum)	2	2	2
Progressive Shear (Galvanized Steel)	3	3	3
Progressive Shear (Stainless Steel)	4	4	4
Other	8	8	8
Unknown	9	9	9

DIMENSIONS OF POLE AT BASE (INCHES)
NA 98 Unk. 99



	V#1	V#2	V#3
x Dim.	__ __	__ __	__ __
y Dim.	__ __	__ __	__ __
t Dim.	__ __	__ __	__ __

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E 5

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TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__	__ __	__ __ __

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
ROADSIDE OBJECT FORM SUPPLEMENT

IMPACT ATTENUATORS If Impact Attenuator was struck, complete this section.

TYPE OF ATTENTUATOR	Vehicle #1	Vehicle #2	Vehicle #3
Fitch Inertial Barrier	1	1	1
Torshok Barrier	2	2	2
Hi-Dro Cushion Crash Barrier	3	3	3
Modular Crash Cushion (Steel Drum)	4	4	4
Vermiculite Concrete Barrier	5	5	5
Van Zelm Dragnet System	6	6	6
Goodyear Automobile Tire Cushion	7	7	7
Other	8	8	8
Unknown	9	9	9
BARRIER DEFORMATION DISTANCE (FEET)	____	____	____

HS Form 367 (Field)
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TEAM	YEAR	MONTH	DAY	SEQUENCE

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY

HUMAN: INTERVIEW DATA

ADMINISTRATIVE DATA

Date of Accident (Month, Day, Year) ____________

Date Investigation Began (Month, Day, Year) ____________

Date Interview Conducted (Month, Day, Year) ____________

Due to Serious Injuries Hold Until (Month, Day, Year) ____________

Vehicle # Assignment (Vehicles described in this Interview are defined as follows:)

Veh. # _____ = ____________

Veh. # _____ = (INDICATE YEAR, MAKE, AND MODEL) ____________

Veh. # _____ = ____________

Interviewee's Accident Role ____

1. Driver of Eligible Veh. # _____
2. Passenger of Eligible Veh. # _____
3. Occupant of Ineligible Veh. # _____
4. Policeman
5. Witness
6. Other ____________

12 OCCUPANT INTERVIEW CONTACT RECORD

DATE	TIME	CONTACTED BY	MANNER OF CONTACT	RESULTS

COMMENTS: ____________

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U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY

HUMAN: INTERVIEW DATA

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GENERAL ACCIDENT DESCRIPTION

Provide a Brief Description of the Accident Sequence.

____

Weather Conditions ___
1. Clear
2. Rain
3. Sleet
4. Snow
5. Fog/Smog/Smoke
6. Blowing Sand/Dust
7. Heavy Overcast
8. Other ___________

Traffic Disruptions ___
0. None
1. Highway Maintenance or Construction
2. Other Construction
3. Prior Accident
4. Other ___________

Road Surface ___
1. Dry/Clean
2. Wet
3. Ice
4. Snow
5. Other ___________
9. Unknown

View Obstructions ___
0. None
1. View Obstructed By ___________
9. Unknown

PRE-CRASH DATA

(INSERT VEHICLE #) Veh.# ___ Veh.# ___ Veh.# ___

Travel Direction ___ ___ ___
1. North
2. East
3. South
4. West
8. Not Applicable
9. Unknown

Travel Lane ___ ___ ___
1. 1st Lane
2. 2nd Lane
3. 3rd Lane
4. 4th Lane
5. Other ___________
8. NA
9. Unknown

Estimated Travel Speed __ __ __ __ __ __
- 00 Stopped or Parked
- 01-96 Actual Speed
- 97 97 or More
- 98 Not Applicable
- 99 Unknown

Vehicle Activity Prior to Accident Sequence __ __ __ __ __ __

Driver Controlled
- 01 Going Straight
- 02 Right Turn
- 03 Left Turn
- 04 U-Turn
- 05 Changing Lanes
- 06 Passing
- 07 Straight, Slowing
- 08 Backing
- 09 Stopped in Traffic
- 10 None: Double Parked
- 11 None: Parked, Not in Traffic
- 12 Parking
- 13 Leaving Parked Position
- 14 Starting in Roadway

Not Driver Controlled
- 21 Sliding, Leading with: Front
- 22 Right
- 23 Left
- 24 Rear
- 25 Rotating: Clockwise
- Counterclockwise
- 97 Other
- 98 Not Applicable
- 99 Unknown

Attempted Avoidance Maneuver __ __ __ __ __ __
- 00 None
- 01 Braking
- 02 Steering Left
- 03 Steering Right
- 04 Braking and Steering Left
- 05 Braking and Steering Right
- 06 Accelerating
- 07 Accel. and Steer. Left
- 08 Accel. and Steer. Right
- 09 Brake Release
- 10 Other ___________
- 98 Not Applicable
- 99 Unknown

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NATIONAL CRASH SEVERITY STUDY
HUMAN: INTERVIEW DATA

CRASH DATA (INSERT VEHICLE #)	Veh.# ___	Veh.# ___	Veh.# ___
Location of First POI 1. On Roadway 2. On Shoulder 3. On Median 4. Off Roadway (beyond shoulder area) 5. Parking Lot 6. Other ______ 8. Not Applicable 9. Unknown	___	___	___ If coded 2-9, Code 8 Here
Travel Lane Number 1. 1st Lane 2. 2nd Lane 3. 3rd Lane 4. 4th Lane 5. Other ______ 6. Center of Roadway 8. Not Applicable 9. Unknown	___	___	___
Travel Lane Direction 1. North 2. East 3. South 4. West 5. Center of Roadway 8. Not Applicable 9. Unknown	___	___	___
Estimated Impact Speed 00 Stopped 01-97 Actual Speed 98 Not Applicable 99 Unknown	___ ___	___ ___	___ ___

Contact Sequence, Impact Location, and Vehicle Orientation at Impact (Accident Viewpoint)

Did More than Six Impacts Occur ? ___
1. Yes
2. No
9. Unk.

If More than Six Impacts Occurred, Describe the Six Severest Impacts:

Impact No.	Object Contacted[1]	Veh. No.	Impact Loc.[2]	Veh. Orient.[3]	Veh. No.	Impact Loc.[2]	Veh. Orient.[3]
1							
2							
3							
4							
5							
6							

Select Appropriate Codes from List Below:

1. Object Contacted
   1. Guardrail
   2. Ditch
   3. Ground
   4. Tree
   5. Pole
   6. Sign
   7. Other ______
   8. Not Applicable
   9. Unknown

2. Vehicle Impact Location
   1. Front
   2. Right Side
   3. Rear
   4. Left Side
   5. Top
   6. Undercarriage
   7. Other ______
   8. Not Applicable
   9. Unknown

3. Vehicle Orientation
   1. Tracking, No Skidding
   2. Tracking, Skidding
   3. Rotated Clockwise to Path of Travel
   4. Rotated Counterclockwise to Path of Travel
   5. Rolling Over
   6. Other ______
   8. Not Applicable
   9. Unknown

HUMAN: INTERVIEW DATA

POST-CRASH DATA

(INSERT VEHICLE #) Veh.# ___ Veh.# ___ Veh.# ___

Driver Inputs Between Last POI and FRP

00	None
01	Braking
02	Steering Left
03	Steering Right
04	Braking and Steering Left
05	Braking and Steering Right
06	Acceleration Followed by Braking
07	Acceleration Followed by Braking and Steering
08	Brake Release
09	Vehicle Came to Rest at Last POI
10	Other ______________________
98	Not Applicable
99	Unknown

If multiple impacts were involved, describe driver inputs between initial POI and last POI. ______________________

____

Estimate of Distance Traveled Between Initial POI and FRP

000	Came to Rest at Initial POI	998	Not Applicable
025	25 Feet (e.g.)	999	Unknown

Estimate of Distance Traveled Between Final POI and FRP

000	Came to Rest at Final POI	998	Not Applicable
025	25 Feet (e.g.)	999	Unknown

Final Rest Position (FRP)

1	On Roadway	4	Off Roadway (beyond shoulder area)
2	On Shoulder	5	Other ______________
3	On Median	8	Not Applicable
		9	Unknown

Accident Diagram (Draw a rough sketch of the accident sequence as described by driver -- include at impact and final rest positions)

Any luggage or other cargo in car when accident occurred? Describe: ______________________

______________________ Est. Weight __________

Where is car now? ______________________

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NATIONAL CRASH SEVERITY STUDY
HUMAN: INTERVIEW DATA

11-13	Number Occupants from Left to Right and Front to Rear - 01, 02, 03, 04, 05, 06, etc.	Occupant Number						
14	1. Front Seat 3. 3rd Seat 9. Unk. 2. 2nd Seat 4. Other	Seat Area						
15	On Seat: 1 Left 2 Center 3 Right 4 Entire On Floor: 5 Left 6 Center 7 Right 8 Entire 9 Unknown	Location						
16-17	00 Less than One Year 99 Unknown 01-97 Actual Age 98 98 Years & Older	Age						
18-19	To 98 Actual Height in Inches 99 Unknown	Height						
20-22	To 998 Actual Weight in Lbs. 999 Unknown	Weight						
23	1. Male 2. Female 3. Female, Pregnant 4. Female, Unk. if Pregnant 9. Unknown	Sex						
24 * 26 25	0. Not Used 1. Lap & Torso 2. Lap Only 3. Torso Only 4. Air Cushion & Lap Belt 5. Air Cushion Only 6. Passive Belt 7. Child Seat (Make/ Model ____) 8. No Restraint 9. Unknown	Restraint Use						
Not on Summary Form	1. Yes (Describe ____ ____) 2. No 8. NA (No Belt/Not Worn) 9 Unknown	Malfunction/ Maladjustment						
27	Copy from Police Form	Injury (Police) Severity						
28	0. None 1. Complete Ejection 2. Partial Ejection 3. Part. Ej. & Trapped 4. Ej., Unk. Degree 5. Trapped 6. Other 9. Unknown	Ejection/ Entrapment						
29-30	00 No Ejection Window: LF RF LR RR REAR UNK. Open: 01 02 03 04 05 09 Closed: 11 12 13 14 15 19 Unk. if Open: 21 22 23 24 25 29 Door: 31 32 33 34 35 39 Windshld. (Bond Sep.) 40 (No Bond Sep.) 41 Roof (Convrt. or Sunroof) 50 Other ____ 60 Unk. Eject. Site 98 Unk. if Eject. 99	Ejection Area						
	0. Not Injured 1. Injured 9. Unk. if Injured	Injury Status						
31	0. None 1. First Aid at Scene 2. Transport. to Hosp./ Clinic 3. Private Physician 4. Other ____ ____ 9. Unknown	Treatment						

COMMENTS: (If occupant was transported to a hospital or clinic, indicate the transporting unit and the name of the hospital or clinic.) ____

*Columns 24 and 26 represent police and final investigation decision on restraint use.

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NATIONAL CRASH SEVERITY STUDY

HUMAN: INTERVIEW DATA

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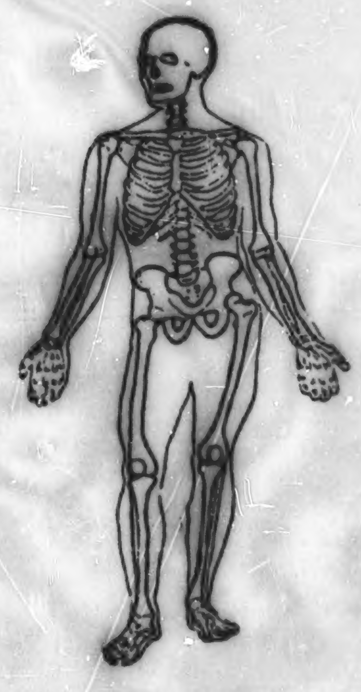
INJURY DATA

OCCUPANT NO. ___ Indicate the nature, location, and injury source of all injuries.



Outpatient Visits ___

0 None
1-6 Actual Number
7 7 or More
8 NA (Not Injured)
9 Unknown

Activity Restriction (Actual Days)

Bed Rest ___ ___
Other Restriction (Describe ___ ___ ___
___)
Work Days Lost ___ ___
Days in Hospital ___ ___

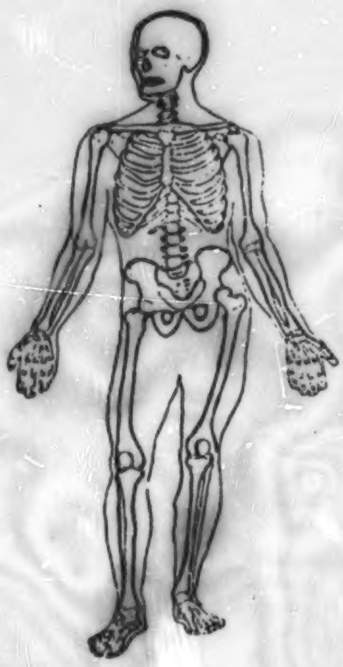
Whiplash Symptoms Appeared: ___

0 Immediately
1-6 Actual Days Later
7 7 or More Days Later
8 Not Applicable
9 Unknown

Long Term Disabilities ___

0. None Sustained
9. Unknown
1. Disability Sustained
(Describe ___
___)

OCCUPANT NO. ___ Indicate the nature, loc tion, and injury source of all injuries.



Outpatient Visits ___

0 None
1-6 Actual Number
7 7 or More
8 NA (Not Injured)
9 Unknown

Activity Restriction (Actual Days)

Days in Hospital ___ ___
Bed Rest ___ ___
Work Days Lost ___ ___
Other Restriction (Describe ___ ___ ___
___)

Whiplash Symptoms Appeared: ___

0 Immediately
1-6 Actual Days Later
7 7 or More Days Later
8 Not Applicable
9 Unknown

Long Term Disabilities ___

0. None Sustained
9. Unknown
1. Disability Sustained
(Describe ___
___)

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H1

TEAM	YEAR	MONTH	DAY	SEQUENCE
___	___	___ ___	___ ___	___ ___ ___

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
HUMAN: MEDICAL DATA SUPPLEMENT

VEHICLE NUMBER ___

OCCUPANT NUMBER ___ ___

Complete this form for each injured occupant and attach a copy of the medical report.

OCCUPANT PATIENT HISTORY

32 **Outpatient Visits** ___ ___ ___
- 0 None
- 1-6 Actual Number
- 7 7 or More → (Record Number)
- 8 Not Applicable
- 9 Unknown

Activity Restriction*

33-34 Bed Rest ___ ___ ___

35-36 Other Restriction (Describe ___________________________) ___ ___ ___

37-38 Work Days Lost ___ ___ ___

39-40 Days in Hospital ___ ___ ___

*See Manual for codes used in Columns 33-40 and check page 6, Interview Form.

41 **Whiplash Injury** ___ ___
- 0 Symptoms Appeared Immediately
- 1-6 Actual Days Later
- 7 7 or More Days Later
- 8 Not Applicable
- 9 Unknown

42 **Long Term Disabilities** ___
- 0. None Sustained
- 9. Unknown ___ ___
- 1. Disability Sustained (Describe ___________________________

DATA SOURCE (Code Data Source Beside Specific Codes on Left)

1. Hospital Record
2. Interview
3. Treating
4. Other ___________
5. Interview + Hospital Record
6. Interview + Treating Physician
7. Interview + Other ___________
8. Hospital Record + Other ___________
9. Treating Physician + Other ___________

INJURY DESCRIPTION

More than Six Injuries Sustained ___
1. Yes 2. No 9. Unknown

If more than six injuries were sustained, describe the six severest injuries.

	Inj. No.	Body Region	Aspect	Lesion	System/ Organ	AIS Severity	Injury Source	ICDA	Overall AIS
43-53	1	___	___	___	___	___ 47	___ ___	___ ___ ___.___	___ 76
54-64	2	___	___	___	___	___ 58	___ ___	___ ___ ___.___	
65-75	3	___	___	___	___	___ 69	___ ___	___ ___ ___.___	
	4	___	___	___	___	___	___ ___	___ ___ ___.___	
	5	___	___	___	___	___	___ ___	___ ___ ___.___	
	6	___	___	___	___	___	___ ___	___ ___ ___.___	

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V

TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

Vehicle data not collected. Reason? ______________________________

Vehicle No. ___ 14-15 No. of VIN Characters ___ ___

16-22 VIN (Left Justify, Omit Production Numbers) ___ ___ ___ ___ ___ ___ ___

23-27 Make/Model (CPIR Code) ______________ ___ ___ ___ ___ ___

28-32 Mileage (Odometer Reading) 99998 = 99998 mi. or more ___ ___ ___ ___ ___.
99999 = Unknown

33-34 Model Year ___ ___

35-36 **BODY STYLE**

Automobiles		Trucks		Other	
Passenger Car	01	Van - Passenger	05	School Bus	11
Stationwagon	02	- Cargo	06	Other Bus	12
Convertible	03	Multi-Purpose	07	Motorcycle	13
Car, pickup body (e.g., El Camino, Ranchero, etc.)	04	Pickup	08	Other Body Style	98
		Straight Truck	09	Unknown	99
		Tractor-Trailer	10		

VEHICLE WEIGHT

37-39 Curb ___ ___, ___ 0 0

40-42 Occupant and Cargo Only ___ ___, ___ 0 0

43 **TOWING ANOTHER VEHICLE**

Yes	1
No	2
Unknown	9

VEHICLE DAMAGE

		Object Contacted	CDC	Veh. No.	Impact No.
44-54	(1)	__ __	__ __ | __ __ __ __ | __	__	__
55-65	(2)	__ __	__ __ | __ __ __ __ | __	__	__
	(3)	__ __	__ __ | __ __ __ __ | __	__	__
	(4)	__ __	__ __ | __ __ __ __ | __	__	__

(1) = Highest Severity (Estimated ΔV)

66 **VEHICLE TOWED FROM SCENE**

Yes	1
No	2
Unknown	9

67 **SOURCE OF VEHICLE DATA**

Inspection at Repair or Tow Facility	1
Inspection at Person's Home	2
Inspection at Scene	3
Not Inspected (Photos or Repair Data)	4
Not Inspected. Reason. ________	5
Unknown	9

68 **VEHICLE INSPECTION**

Not Inspected	0
Inspected on First Visit	1
Actual Number of Locations Visited (Including Follow-Ups to Same Location)	2 3 4 5 6 7
8 or More	8
Unknown	9

69 **APPLICABLE VEHICLE**

Yes	1
No	2

NOTE: COLUMN NUMBERS FROM THE SUMMARY VEHICLE DATA FORM ARE LISTED ON THE LEFT IN THIS FORM TO SIMPLIFY TRANSFER OF DATA.

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HS Form 367 (Field)

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U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

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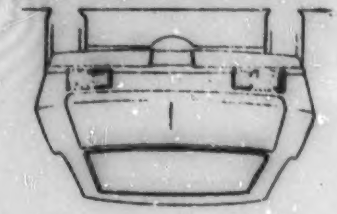
DAMAGE DESCRIPTION

WHEELS LOCKED BY DAMAGE

RF ___
LF ___
RR ___
LR ___

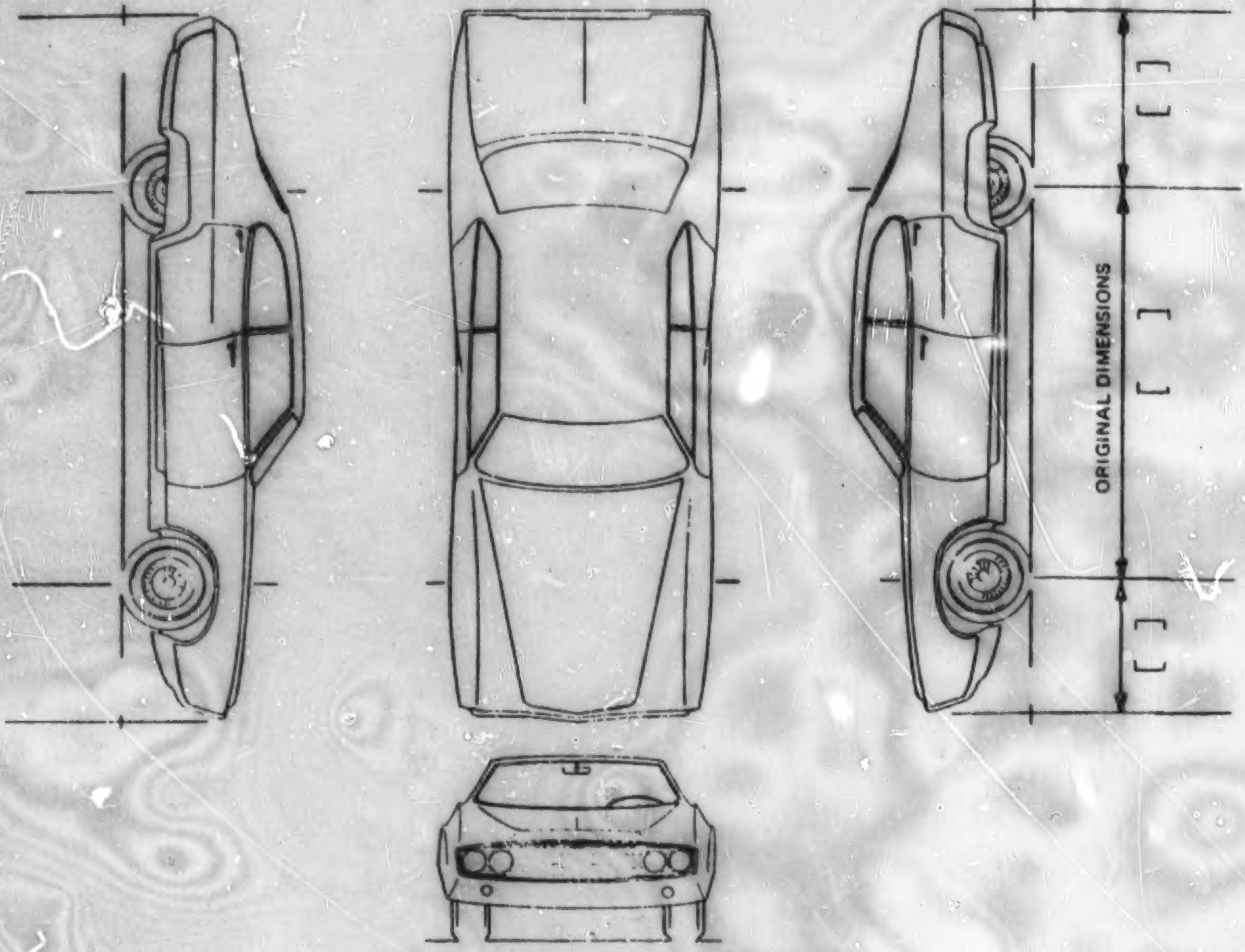
1 Yes, 2 No, 8 NA, 9 Unk.



WHEEL STEER ANGLES*
(For locked front wheels or displaced rear axles only)

RF ± ___ ___
LF ± ___ ___
RR ± ___ ___
LR ± ___ ___

Within ± 5°



Impact Number	L	C_1	C_2	C_3	C_4	C_5	C_6	D$\pm$
1								
2								
3								
4								

NOTE: MEASURE C_1 TO C_6 FROM: DRIVER TO PASSENGER SIDE IN FRONT OR REAR IMPACTS: REAR TO FRONT IN SIDE IMPACTS

[illegible]
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V

TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

U.S DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

Vehicle data not collected. Reason? ____________________

Vehicle No. __

14-15 No. of VIN Characters __ __

16-22 VIN (Left Justify, Omit Production Numbers) __ __ __ __ __ __ __

23-27 Make/Model (CPIR Code) ____________ __ __ __ __ __

28-32 Mileage (Odometer Reading) 99998 = 99998 mi. or more __ __ __ __ __.
99999 = Unknown

33-34 Model Year __ __

35-36 **BODY STYLE**

Automobiles		Trucks		Other	
Passenger Car	01	Van - Passenger	05	School Bus	11
Stationwagon	02	- Cargo	06	Other Bus	12
Convertible	03	Multi-Purpose	07	Motorcycle	13
Car, pickup body (e.g., El Camino, Ranchero, etc.)	04	Pickup	08	Other Body Style	98
		Straight Truck	09	Unknown	99
		Tractor-Trailer	10		

VEHICLE WEIGHT

37-39 Curb __ __, __ 0 0

40-42 Occupant and Cargo Only __ __, __ 0 0

43 **TOWING ANOTHER VEHICLE**

Yes	1
No	2
Unknown	9

VEHICLE DAMAGE

		Object Contacted	CDC	Veh. No.	Impact No.
44-54	(1)	__ __	__ __ | __ __ __ __ | __	__	__
55-65	(2)	__ __	__ __ | __ __ __ __ | __	__	__
	(3)	__ __	__ __ | __ __ __ __ | __	__	__
	(4)	__ __	__ __ | __ __ __ __ | __	__	__

(1) = Highest Severity (Estimated ΔV)

66 **VEHICLE TOWED FROM SCENE**

Yes	1
No	2
Unknown	9

67 **SOURCE OF VEHICLE DATA**

Inspection at Repair or Tow Facility	1
Inspection at Person's Home	2
Inspection at Scene	3
Not Inspected (Photos or Repair Data)	4
Not Inspected. Reason. ____________	5
Unknown	9

68 **VEHICLE INSPECTION**

Not Inspected	0
Inspected on First Visit	1
Actual Number of Locations Visited (Including Follow-Ups to Same Location)	2 3 4 5 6 7
8 or More	8
Unknown	9

69 **APPLICABLE VEHICLE**

Yes	1
No	2

51

NOTE: COLUMN NUMBERS FROM THE SUMMARY VEHICLE DATA FORM ARE LISTED ON THE LEFT IN THIS FORM TO SIMPLIFY TRANSFER OF DATA.

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U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

DAMAGE DESCRIPTION

WHEELS LOCKED BY DAMAGE

RF ___

LF ___

RR ___

LR ___

1 Yes, 2 No, 8 NA, 9 Unk.

WHEEL STEER ANGLES*

(For locked front wheels or displaced rear axles only)

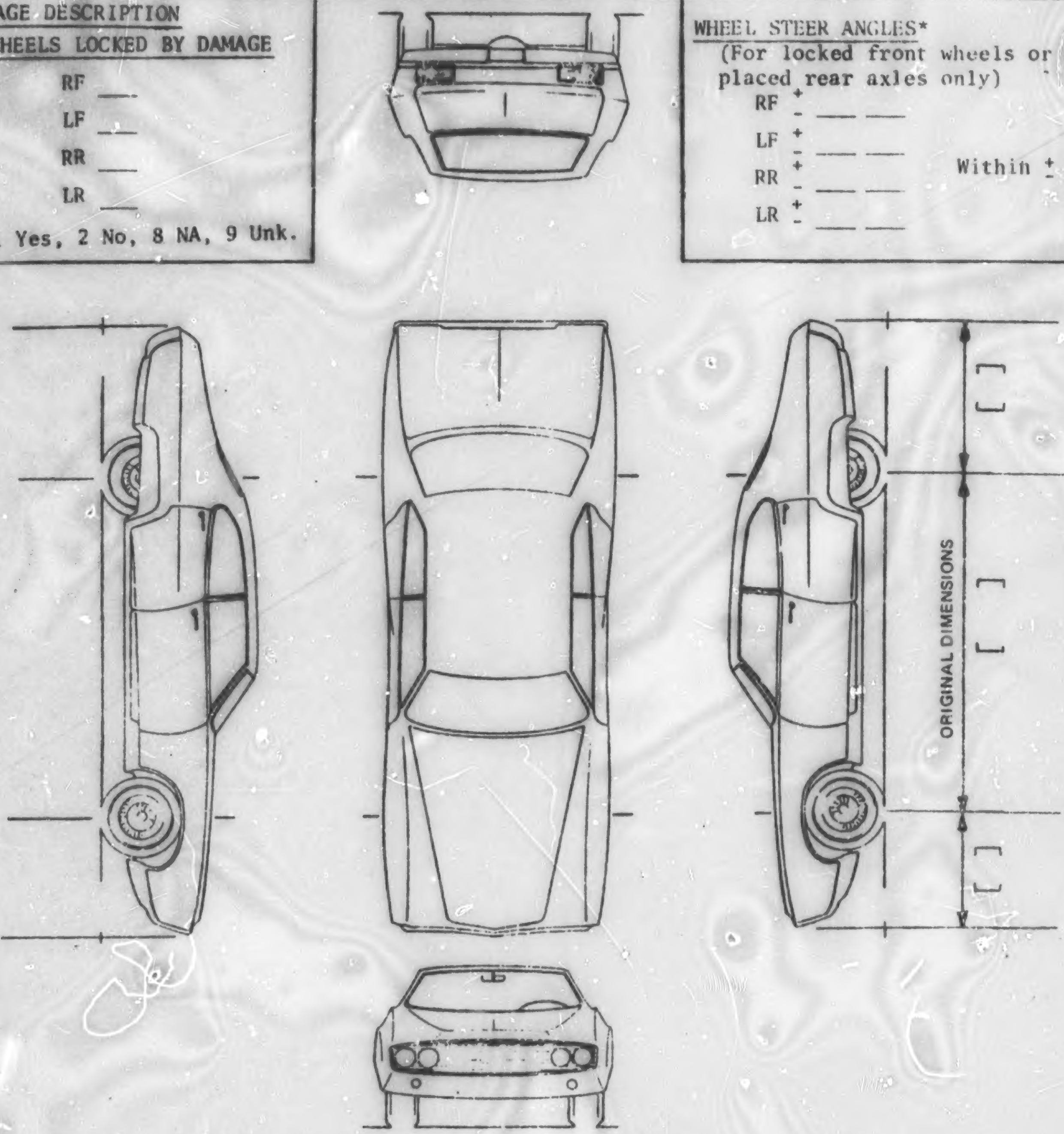
RF ± ___ ___

LF ± ___ ___

RR ± ___ ___

LR ± ___ ___

Within ± 5°



Impact Number	L	C_1	C_2	C_3	C_4	C_5	C_6	D±
1								
2								
3								
4								

NOTE: MEASURE C_1 TO C_6 FROM: DRIVER TO PASSENGER SIDE IN FRONT OR REAR IMPACTS: REAR TO FRONT IN SIDE IMPACTS

BEST DOCUMENT AVAILABLE

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NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

70 **FRONT SEAT TYPE**

Bench	1
Split-Bench	2
Bucket	3
Other	8
Unknown	9

71 **HEAD RESTRAINTS**

None		0
Integral		1
Adjustable:	Left Side Only	2
	Right Side Only	3
	Both Sides	4
Add-On:	Left Side Only	5
	Right Side Only	6
	Both Sides	7
Other		8
Unknown		9

MEASUREMENT, TOP OF SEAT CUSHION TO TOP OF HEAD RESTRAINT (INCHES)

72-73 No Restraint - 00 LF ___ ___
74-75 Actual Measure - 01-97
Unknown - 99 RF ___ ___

TRANSMISSION

Automatic	1
Manual	2
Unknown	9

DOOR PERFORMANCE

	76	77					
		Door Latches		Door Hinges			
					Separated		
Door	Door Opened	Damaged	Released	Damaged	Partial	Complete	Door Jammed Closed
LF							
RF							
LR							
RR							
REAR							

Yes 1, No 2, NA 8, Unknown 9

GLASS PERFORMANCE

WINDOW STATUS (Pre-Crash)			GLASS DAMAGE	PERCENT SEPARATION
Doors	Left Front	___	___ ___	___
	Right Front	___	___ ___	___
	Left Rear	___	___ ___	___
	Right Rear	___	___ ___	___
Quarter Windows*	Left Rear	___	___ ___	___
	Right Rear	___	___ ___	___
	Windshield	___	___ ___	___
	Rear Window	___	___ ___	___

CODES

Open Completely	1
Open Partially	2
Closed	3
Fixed	4
Not Applicable	8
Unknown	9

*Includes fixed quarter windows in 2 door cars, rear side windows in stationwagon cargo areas and opera windows.

CODES

No Damage		00	
		Cracked	Cracked, Bond Sep.
Cause:	Occ.	01	07
	Def.	02	08
	Occ. + Def.	03	09
		Broken	Broken, Bond Sep.
	Occ.	04	10
	Def.	05	11
	Occ. + Def.	06	12
Not Applicable		98	
Unknown		99	

CODES

None	00
Actual %	01-96
97 or More	97
NA	98
Unknown	99

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

RESTRAINT SYSTEM

Seating Position	Type	Used	Malfunction, Defect*	System Defeated*	Restraint System Damaged by Occupant*	Type of Adjustment-Locking System
LF						
CF						
RF						
LR						
CR						
RR						
CENTER SEAT WAGON LEFT						
CENTER						
RIGHT						
OTHER						
UNKNOWN						
Codes for Columns Directly Above	None 0 Lap & Torso 1 Lap Only 2 Torso Only 3 Air Cushion & Lap Belt 4 Air Cushion Only 5 Passive Belt 6 Child Seat** 7 Not Applicable 8 Unknown 9		Yes 1 No 2 NA 8 Unk. 9 Notify Vernon Roberts, NHTSA	Yes 1 No 2 NA 8 Unk. 9	Yes 1 No 2 NA 8 Unk. 9	Inertia Reel 1 Belt Sensitive 2 Fixed Length-Adjust. 3 NA 8 Unk. 9

* Describe: ______________________________

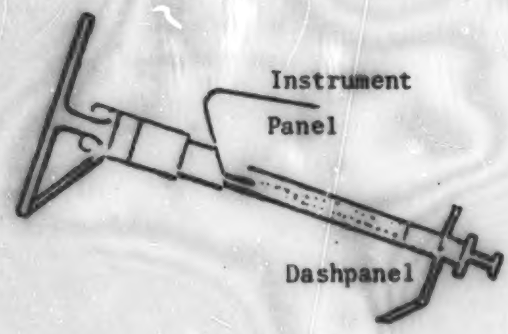
____

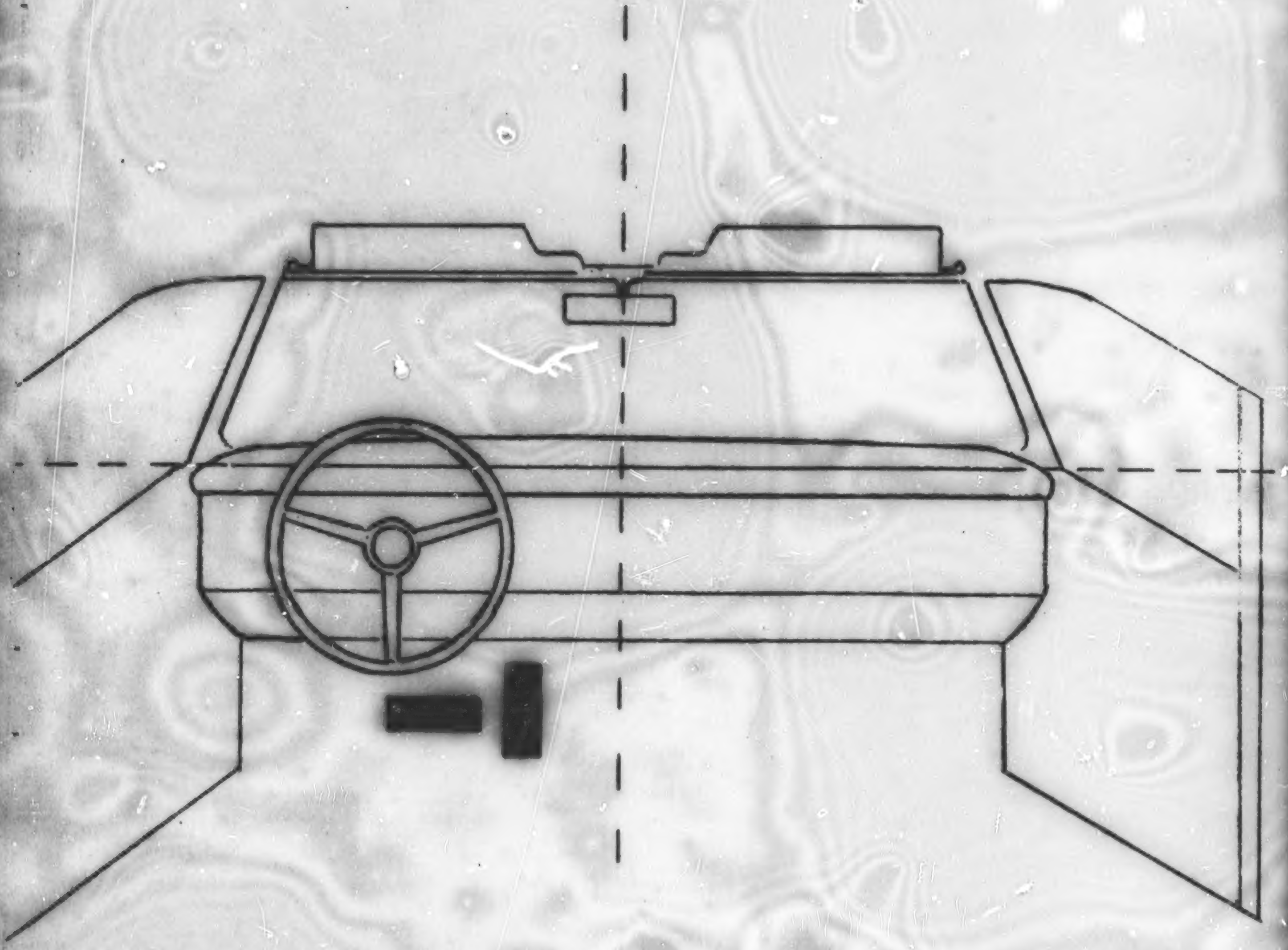
** Provide brand name and method of attachment; i.e., vehicle restraint system, other method (photograph, if available). ______________________________

____

VEHICLE INTERIOR

Occupant Contacts





Sketch controls in appropriate positions, if contacted. Sketch all occupant contact points and code on next two pages. Dash lines indicate center of instrument panel-windshield area and top of panel for measurement purposes.

BEST DOCUMENT AVAILABLE

EXTERIOR OBJECT INTRUSION

None	0
Hood	1
Rail (guard or fence-rail)	2
Pole (telephone, sign)	3
Tree Limb	4
Other Vehicle	5
Other (Specify ____________________)	8
Unknown	9

INTERIOR OBJECTS CONTACTED (Circle all items contacted)

FRONT PASSENGER COMPARTMENT

None	00
Instrument Panel	01
Steering Assembly	02
Windshield	03
Glove Compartment Area	04
Hardware Items (ashtray, instruments, knobs, keys)	05
Heater or A/C Ducts	06
A/C or Ventilating Ducts	07
Mirrors	08
Parking Brake	09
Radio	10
Sunvisors, Fittings and/or Top Molding (header)	11
Transmission Selector Lever (column mounted)	12
Add-on equipment (CB, tape deck, air conditioner)	13
Parcel Tray	14

SIDES

Side Interior Surface	15
Hardware	16
Armrests	17
A-Pillar	18
B-Pillar	19
C-Pillar	20
D-Pillar	21
Courtesy Lights	22
Window Glass	23
Window Frame	24

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

INTERIOR	
Front Seatback	25
Restraint System Hardware	26
Restraint System Webbing	27
Head Restraints	28
Air Cushion	29
Other Occupants	30
Interior Objects Loose (Specify ______________)	31
ROOF	
Roof Side Rails	32
Sunvisors, Fittings and/or Top Molding (header)	33
Roof or Convertible Top	34
Coat Hooks	35
FLOOR	
Transmission Selector Lever	36
Parking Brake Handle	37
Floor	38
Foot Controls	39
Console	40
REAR	
Backlight (rear window)	41
Backlight Header	42
EXTERIOR TO PASSENGER COMPARTMENT	
Hood	43
Objects Exterior to Car	44
Outside Surface of Car	45
Other (may indicate more than one item; specify ______________)	46
Unknown Exterior Object	49
NON-CONTACT INJURY SOURCE (Impact Force)	90
UNKNOWN AREA OF CONTACT	99

NOTE: BE SURE ALL REQUIRED SUPPLEMENTS ARE COMPLETED AND SUBMITTED.

Check supplements submitted: V1☐ V2☐ V3☐ V4☐ V5☐ None Required☐

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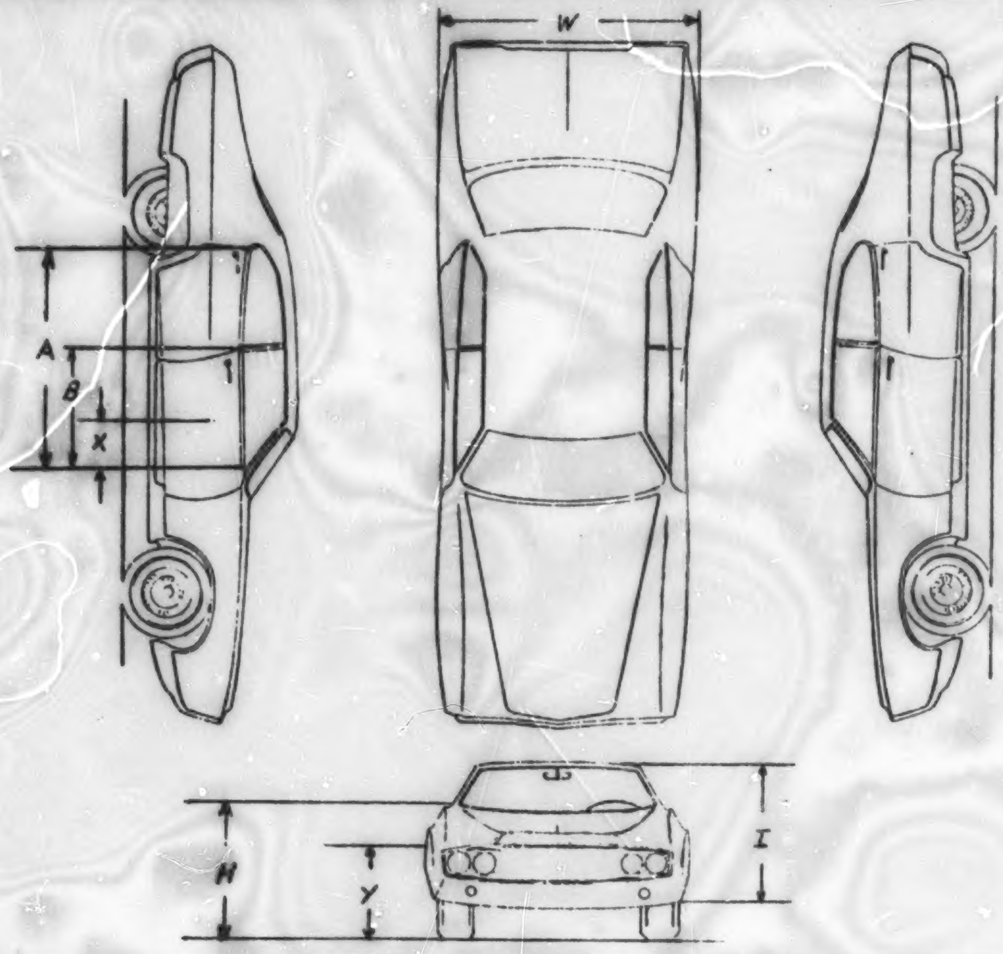
V1

TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

U.S. DOT/NHTSA NATIONAL CRASH SEVERITY STUDY

SIDE STRUCTURE PERFORMANCE SUPPLEMENT

(Complete Form Only if Compartment Impact Occurred)



SIDE DAMAGED: 1 Left, 2 Right, 3 Both Sides, 9 Unknown ___

ALL DIMENSIONS IN INCHES

A Dimension from front of A pillar to front of C pillar* ___ ___

B Dimension from front of A pillar to center of B pillar ___ ___

X Dimension from A pillar to point of maximum penetration ___ ___

Y Dimension from ground to point of maximum penetration ___ ___

H Dimension from ground to bottom of glass ___ ___

I Dimension from bottom of rocker panel to roof edge ___ ___

MAXIMUM AMOUNT OF PENETRATION ___ ___

ROCKER PANEL/SILL ___

0 Not Engaged
1 Engaged
2 Overridden
9 Unknown

*Front of C pillar or rearmost glass point.

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TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

V 2

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
PASSENGER COMPARTMENT INTRUSION CLASSIFICATION SUPPLEMENT

(Complete form only if intrusion occurred)

Area of Intrusion		CIC#1	CIC#2	CIC#3
Left side	1			
Right side	2	__	__	__
Front	3			
Rear	4			
Roof	5			
Floor pan	6			
Not Applicable	8			
Unknown	9			
Specific Horizontal Area of Severest Intrusion				
Front - Left	01	__ __	__ __	__ __
- Center	02			
- Right	03			
- Distributed	04			
Side - Front door	05			
- Rear door (area)	06			
- Rear area, stationwagon	07			
- Distributed	08			
Rear - Left	09			
- Center	10			
- Right	11			
- Distributed	12			
Not Applicable	98			
Unknown	99			
78 **Intruding Component** (Choose three, starting with component causing maximum extent of intrusion.)		__ __	__ __	__ __
		__ __	__ __	__ __
		__ __	__ __	__ __
Instrument panel	01			
Dash panel	02			
Toe pan	03			
Steering column	04			
Windshield header	05			
A pillar	06			
Door panel or side panel	07			
Window frame	08			
B pillar	09			
C pillar	10			
D pillar	11			
Roof side rails	12			
Roof or convertible top	13			
Floor pan	14			
Backlight header	15			
Rear seat back	16			
Not Applicable	98			
Unknown	99			
Maximum Extent of Intrusion (Inches)				
Actual Measure	01-97	__ __	__ __	__ __
Not Applicable	98			
Unknown	99			

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V3

TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY

SEAT PERFORMANCE SUPPLEMENT

(Complete form only if seat damage occurred)

70 **FRONT SEATS**

Type	
Bench	1
Split-Bench	2
Bucket	3
Other	8
Unknown	9

Seat Adjusters	
Undamaged	0
Damaged	1
Separated at:	
Floor	2
Adjuster	3
Seat	4
Not Applicable	8
Unknown	9

Back Rest	Left	Right
Undamaged	0	0
Deformed forward	1	1
Deformed forward by rear occupant	2	2
Deformed rearward	3	3
Unknown	9	9

Cushion	
Undamaged	0
Left side damaged	1
Right side damaged	2
Both sides damaged	3
Unknown	9

Front Seat Back Locks		
Not equipped		0
Equipped:	Left held	1
	Right held	2
	Both held	3
	Both Failed	4
Unknown		9

REAR SEATS

Type of Rear Seat	
None	0
Non-folding	1
Folding	2
Unknown	9

Back Rest	
Undamaged	0
Deformed forward	1
Deformed forward by other occupant or cargo	2
Deformed rearward	3
Unknown	9

Cushion	
Undamaged	0
Left side damaged	1
Right side damaged	2
Both sides damaged	3
Unknown	9

Seat Back Locks		
Not equipped		0
Equipped:	Left or center held	1
	Right held	2
	Both held	3
	Both Failed	4
Unknown		9

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V4

TEAM	YEAR	MONTH	DAY	SEQUENCE
___	___	___ ___	___ ___	___ ___ ___

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY
FIRE HAZARD SUPPLEMENT
(Complete form only if vehicle fire occurred)

FUEL LEAKAGE

DID FUEL LEAKAGE OCCUR?	
Yes	1
No (Skip to Fire Section)	2
Unknown	9

WHICH VEHICLES LEAKED FUEL?	V#1	V#2	V#3
Yes	1	1	1
No	2	2	2
Not Applicable	8	8	8
Unknown	9	9	9

TYPE OF FUEL LEAKAGE			
Gasoline	1	1	1
Diesel	2	2	2
Other (Specify) ______	3	3	3
Combinations (Specify) ______	4	4	4
Not Applicable	8	8	8
Unknown	9	9	9

LOCATION OF LEAK			
Engine Compartment			
Unknown Location	01	01	01
Carburetor	02	02	02
Fuel Pump	03	03	03
Fuel Lines	04	04	04
Other (Specify ______)	07	07	07
Passenger Compartment			
Fuel Lines	11	11	11
Other (Specify ______)	17	17	17
Fuel Tank Area			
Tank	21	21	21
Fillerneck	22	22	22
Fuel Lines	23	23	23
Other (Specify ______)	27	27	27
Leaks in More than One Area (Specify ______)	31	31	31
Not Applicable	98	98	98
Unknown	99	99	99

FIRE

WHICH VEHICLES WERE INVOLVED?			
Yes	1	1	1
No	2	2	2
Not Applicable	8	8	8
Unknown	9	9	9

FIRE SOURCE*			
Fuel Leakage	1	1	1
Electrical (Compartment)	2	2	2
Electrical (Trunk)	3	3	3
Trunk/Cargo	4	4	4
Arson	5	5	5
Other Vehicle	6	6	6
Other (Specify ______)	7	7	7
Not Applicable	8	8	8
Unknown	9	9	9

FIRE ORIGIN	V#1	V#2	V#3
Engine Compartment			
Unknown Location	01	01	01
Carburetor	02	02	02
Fuel Pump	03	03	03
Fuel Lines	04	04	04
Battery	05	05	05
Wiring	06	06	06
Other (Specify ______)	07	07	07
Passenger Compartment			
Fuel Lines	11	11	11
Instrument Panel	12	12	12
Other Wiring	13	13	13
Other (Specify ______)	17	17	17
Fuel Tank Area			
Tank	21	21	21
Fillerneck	22	22	22
Fuel Lines	23	23	23
Wiring	24	24	24
Other (Specify ______)	27	27	27
Not Applicable	98	98	98
Unknown	99	99	99

EXTENT OF VEHICLE INVOLVEMENT			
Engine Compartment Only	1	1	1
Passenger Compartment Only	2	2	2
Fuel Tank Area Only	3	3	3
Engine + Pass. Area	4	4	4
Pass. + Fuel Tank Area	5	5	5
Engine + Fuel Tank Area	6	6	6
Entire Car	7	7	7
Not Applicable	8	8	8
Unknown	9	9	9

WAS FIRE FED BY VEHICLE FUEL SYSTEM?			
Yes	1	1	1
No	2	2	2
Not Applicable	8	8	8
Unknown	9	9	9

WAS FIRE EXTINGUISHED?			
Yes	1	1	1
No	2	2	2
Not Applicable	8	8	8
Unknown	9	9	9

DID VEH. OCCUPANT SUSTAIN BURN INJURIES?			
Yes	1	1	1
No	2	2	2
Not Applicable	8	8	8
Unknown	9	9	9

*Explain on back of page if details are known.

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V5

TEAM	YEAR	MONTH	DAY	SEQUENCE

U.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY

ROLLOVER SUPPLEMENT

(Complete one form for each vehicle rollover)

PRECIPITATING FACTORS - At the Point of Initiation of Rollover

Surface Type ___
1. Pavement
2. Gravel/Rock
3. Sod
4. Dirt

Surface Condition ___
1. Dry
2. Wet
3. Ice
4. Snow
5. Oil
6. Dirt/Debris

Surface Texture ___
1. Solid
2. Moderate
3. Soft - Wheel dig-in > 2 inches

Surface Discontinuity ___
1. Curb - Barrier > 6 inches
2. Curb - Barrier ≤ 6 inches
3. Curb - Mountable
4. Ditch/Embankment
5. Drop-off

Surface Friction Factor ___.___ ___

Surface Slope Grade in percent (±) relative to roadway
Lateral ___ ___ ___
Longitudinal ___ ___ ___

Vehicle Condition/Failure ___
1. Tire Failure
2. Loss of Wheel
3. Wheel Linkage Failure

Previous Impact ___
1. Yes - Initiating Roll
2. Yes - Not Initiating Roll
3. Yes - Unknown Effect

Vehicle Orientation (o'clock) ___ ___

Location ___
1. On Roadway
2. Off Roadway

ROLLOVER DESCRIPTION

Slope in Direction of Travel - Grade in percent (±) ___ ___ ___

Total Travel Distance to Final Rest (feet) 997 = 997 or greater ___ ___ ___

Number of 1/4 Turns by Vehicle ___ ___

Roll vs. Pitch ___
1. Primarily Roll 2. Primarily Pitch 3. Both

Impact Subsequent to Rollover ___

0 - No, None or N/A 1. Yes 8. Other 9. Unknown

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OCCUPANT DATA

U. S. DEPARTMENT OF TRANSPORTATION National Highway Traffic Safety Administration NATIONAL CRASH SEVERITY STUDY (Occupant Interview)	O.M.B. No. Approval Expires ACCIDENT NO.:

ADMINISTRATIVE

Date of Accident (Month, Day, Year) -------------------- ________

Date Investigation Began (Month, Day, Year)------------- ________

Date Interview Conducted (Month, Day, Year)------------- ________

Due to Serious Injuries Hold Until (Month, Day, Year)--- ________

PERSON'S ROLE (Circle Applicable Number and Fill in Blanks)

1	Driver of Eligible Vehicle # ________	4	Policeman
2	Passenger of Eligible Vehicle # ________	5	Witnesses
3	Occupant of Ineligible Vehicle ________	6	Other ________

CALL RECORD

DATE	TIME	CONTACTED BY	MANNER OF CONTACT	RESULTS

PRECRASH DATA

Details Before Impact (Vehicle Locations, Etc.) ________

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U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration

NATIONAL CRASH SEVERITY STUDY
VEHICLE DATA

INSTRUCTIONS:

Circle applicable number under each heading and complete blanks.

ADVERSE WEATHER

0 None
1 Rain
2 Sleet
3 Snow
4 Fog/Smog/Smoke
5 Blowing Sand/Dust
6 Heavy Overcast
8 Other ________

ROAD SURFACE CONDITION

1 Dry, Clean
2 Wet
3 Ice
4 Snow
5 Other ________
____
____
____

TRAFFIC DISRUPTIONS

0 None
1 Highway Maintenance or Construction
2 Other Construction
3 Prior Accident
4 Other ________
____
____
____

TRAVEL LANE

____

TRAVEL DIRECTION

____

ESTIMATED TRAVEL SPEED

______MPH

VEHICLE MANEUVER JUST BEFORE CRASH

Driver Controlled

01 Going Straight
02 Right Turn
03 Left Turn
04 U-Turn
05 Changing Lanes
06 Passing
07 Straight Slowing
08 Backing
09 Stopped in Traffic
10 Parked in Traffic
11 Parked/Not in Traffic
12 Parking
13 Leaving Parked Position
14 Starting in Roadway

Out of Control

21 Sliding Front Lead
22 Sliding Right Lead
23 Sliding Left Lead
24 Sliding Rear Lead
25 Spinning Clockwise
26 Spinning Counterclockwise

ATTEMPTED AVOIDANCE MANEUVER

0 None
1 Braking
2 Steering
3 Braking & Steering
4 Accelerating
5 Accel. & Steering
6 Brake Release
____

ESTIMATED IMPACT SPEED

________MPH

99 Unknown

OTHER VEHICLE AVOIDANCE MANEUVER - DESCRIBED ________
____

CRASH DATA

Case Vehicle Orientation	Other Vehicle
1. Straight	1. Straight
2. Turning Right	2. Turning Right
3. Turning Left	3. Turning Left

Contact Location

	Case Vehicle Sequence	Other Vehicle Sequence	Sequence	Object (describe
1. Front	___	___	___	1. Guardrail
2. Right Front Corner	___	___	___	2. Ditch
3. Right Side	___	___	___	3. Ground
4. Right Rear Corner	___	___	___	4. Pole
5. Rear	___	___	___	5. Tree
6. Left Rear Corner	___	___	___	6. Sign
7. Left Side	___	___	___	7. Other ________
8. Left Front Corner	___	___		
9. Top	___	___		
10. Undercarriage	___	___		

POST-CRASH DATA

Vehicle Trajectory ____________________

Driver Actions ________________________

FINAL REST - DRIVER'S VEHICLE	FINAL REST - OTHER VEHICLE
1 On Roadway	1 On Roadway
2 On Shoulder	2 On Shoulder
3 Off Road - Median	3 Off Road - Median
4 Off Road - Side	4 Off Road - Side
5 Against/Adjacent to Struck Car or Object	5 Against/Adjacent to Struck Car or Object
6 Other (Specify) ____________________	6 Other (Specify) ____________________

VEHICLE ORIENTATION AT FINAL REST (describe relative to roadway edge) ____________________

____

DRIVER PICTURES AVAILABLE

Yes 1 No 2 Unknown 9

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FORM APPROVED - O.M.B. No.

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY
OCCUPANT DATA

INSTRUCTIONS: 1. Complete for each occupant.
2. Circle applicable number under each heading and complete blanks.

NO. OF OCCUPANTS IN VEHICLE:

ACCIDENT NO.

OCCUPANT ROLE

SEAT LOCATION

1 Front
2 Second
3 Third
4 Other ____________

POSITION -- (Check one) ☐ ON SEAT ☐ ON FLOOR

1 Left most
2 Left center
3 Center
4 Right center
5 Right side
6 Lying down
9 Unknown

ATTITUDE -- (Check one) ☐ ON SEAT ☐ ON FLOOR

1 Standing
2 Lying down
3 On lap or in arms
4 In child carrier
5 Sitting
9 Unknown

DEMOGRAPHICS

Age____ Height: ____ft. ____ins.

SEX: Weight: ____________lbs.

1 Male
2 Female-Unknown if pregnant
3 Female-Not pregnant
4 Female-pregnant

OCCUPANT RESTRAINT ( )

0 None used
1 Lap shoulder belt
2 Lap belt
3 Diagonal belt only
4 Passive air bag system
5 Passive belt system
6 Child restraint (Make/Model)____________
7 Held in lap
8 Other____________
9 Unknown

RESTRAINT SYSTEM MALFUNCTION/ MALADJUSTMENT

1 Yes - Describe in detail________

2 No
9 Not Applicable (No restraints or not worn)
9 Unknown

EJECTION/ENTRAPMENT

1 Not ejected or trapped
2 Ejected (degree unknown)
3 Total ejection
4 Partial ejection
5 Trapped
6 Partial ejection with entrapment
9 Unknown

AREA OF EJECTION

0 Not Applicable
1 Window, Left Side
2 Window, Right Side
3 Window, Rear/ Backlight
4 Door, Left Side
5 Door, Right Side
6 Tailgate
7 Windshield
8 Roof or Open Convertible
9 Unknown

FOR REAR-END COLLISIONS

1 No whiplash injury
2 Whiplash injury appeared
__________ days after accident

INJURIES AND LONG-TERM DISABILITY. ____________

CONTACT POINTS. ____________

NO. DAYS HOSPITALIZED	NO. DOCTOR VISITS	NO. LOST WORK DAYS	NO. DAYS RESTRICTED ACTIVITY

TREATMENT ☐ None ☐ First Aid at Scene	TRANSPORTED BY (Identify Rescue Vehicle)	TRANSPORTED TO (Identify Hospital, Clinic, etc.)

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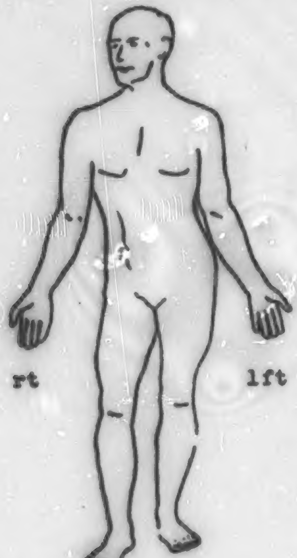
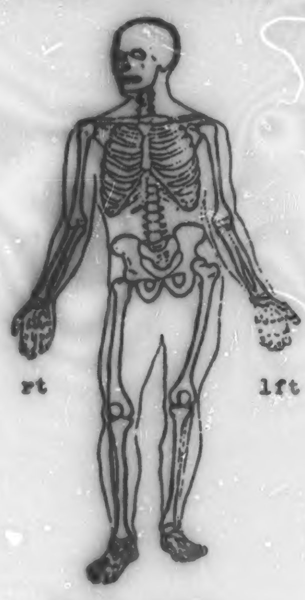
OCCUPANT INJURY

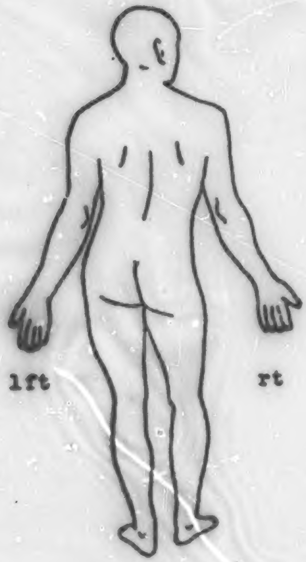
CASE NO.	INVESTIGATOR	OCCUPANT NO.	DATE

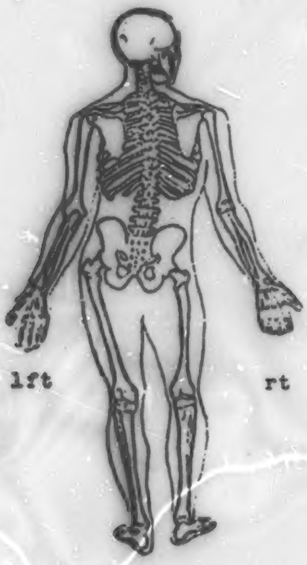


SOFT TISSUE INJURIES



SKELETAL INJURIES





DATA OBTAINED FROM:	HOSPITAL RECORDS INTERVIEW TREATING PHYSICIAN (Circle One)

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TEAM	YEAR	MONTH	DAY	SEQUENCE
__	__	__ __	__ __	__ __ __

H 2

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY

HUMAN: SURGICAL PROCEDURES SUPPLEMENT

VEHICLE NUMBER ___

OCCUPANT NUMBER __ __

Complete this form for each injured occupant who undergoes operative procedures or treatments listed in H-ICDA.

Identify all of the operative procedures performed on the patient in terms of the H-ICDA (Volume 1) code designation listed under Classification of Operations and Treatments.

Record the codes sequentially in the columns on the right, listing first the Classification Number (1 to 17, below) and then the code designation.

Classification of Operations and Treatments:

1 Operations on the Nervous System
2 Operations on the Endocrine System
3 Operations on the Eye
4 Operations on the Ear
5 Operations on Nose, Mouth, and Pharynx
6 Operations on the Respiratory System
7 Operations on the Cardiovascular System
8 Operations on the Hemic and Lymphatic System
9 Operations on the Digestive System
10 Operations on Urinary System
11 Operations on Male Genital Organs
12 Operations on Female Genital Organs
13 Obstetrical Procedures
14 Operations on Musculoskeletal System
15 Operations on the Breast
16 Operations on Skin and Subcutaneous Tissue
17 Miscellaneous Diagnostic and Therapeutic Procedures

Classification	Code
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
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____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __
____	__ __ . __

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NATIONAL CRASH SEVERITY STUDY

OCCUPANT FORM UPDATE RECORD

THIS SECTION MUST BE COMPLETED PRIOR TO INITIAL CASE SUBMISSION

1. Primary Sampling Unit Number ___ ___ (1 2)

2. Case Number 0 ___ ___ ___ (3 4 5 6)

3. Record Number 5 (7)

4. Transaction Code 2 (8)

5. Version Number 2 (9)

6. Vehicle Number ___ ___ (10 11)

7. Occupant Number ___ ___ (12 13)

OCCUPANT'S NAME: ____________________ (sanitize later) Age: ___ ___

DATA ON INITIAL SUBMISSION: Sex: ___

Treatment - Mortality: ___

Hospital Stay: ___ ___

INVESTIGATOR: ____________________

ENTER RESPONSE FOR EACH VARIABLE WHERE DATA ON INITIAL SUBMISSION WAS UNKNOWN OR IS FELT TO BE IN ERROR, GIVEN RECEIPT OF OFFICIAL MEDICAL RECORD(S)

8. Occupant's Age ___ ___ (14 15)

9. Occupant's Sex ___ (16)

19. Treatment - Mortality ___ (32)

20. Hospital Stay ___ ___ (33 34)

COMPLETE PRIOR TO INITIAL CASE SUBMISSION

INJURY DATA CODED ON INITIAL SUBMISSION

28. ___	29. ___	30. ___	31. ___	32. ___	33. ___ ___	34. ___
35. ___	36. ___	37. ___	38. ___	39. ___	40. ___ ___	41. ___
42. ___	43. ___	44. ___	45. ___	46. ___	47. ___ ___	48. ___
49. ___	50. ___	51. ___	52. ___	53. ___	54. ___ ___	55. ___
56. ___	57. ___	58. ___	59. ___	60. ___	61. ___ ___	62. ___
63. ___	64. ___	65. ___	66. ___	67. ___	68. ___ ___	69. ___

UPDATED INJURY DATA BASED ON SUBSEQUENTLY ACQUIRED OFFICIAL MEDICAL DATA

28. ___ (43)	29. ___ (44)	30. ___ (45)	31. ___ (46)	32. ___ (47)	33. ___ ___ (48 49)	34. ___ (50)
35. ___ (51)	36. ___ (52)	37. ___ (53)	38. ___ (54)	39. ___ (55)	40. ___ ___ (56 57)	41. ___ (58)
42. ___ (59)	43. ___ (60)	44. ___ (61)	45. ___ (62)	46. ___ (63)	47. ___ ___ (64 65)	48. ___ (66)
49. ___ (67)	50. ___ (68)	51. ___ (69)	52. ___ (70)	53. ___ (71)	54. ___ ___ (72 73)	55. ___ (74)
56. ___ (75)	57. ___ (76)	58 ___ (77)	59. ___ (78)	60. ___ (79)	61. ___ ___ (80 81)	62. ___ (82)
63. ___ (83)	64. ___ (84)	65. ___ (85)	56. ___ (86)	67. ___ (87)	68. ___ ___ (88 89)	69. ___ (90)

INDICATE THE NATURE AND LOCATION OF ALL INJURIES FROM THE OFFICIAL MEDICAL REPORT(S) ON THE REVERSE SIDE AND ATTACH THE REPORT(S) TO THIS UPDATE

BEST DOCUMENT AVAILABLE

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01

UPDATE	TEAM	YEAR	MONTH	DAY	SEQUENCE
___	___	___	___ ___	___ ___	___ ___ ___

.S. DOT/NHTSA

NATIONAL CRASH SEVERITY STUDY

OCCUPANT INJURY (ADDITIONAL)

1-13 OCCUPANT NUMBER ___ ___ ___

Complete this card only if additional injuries were sustained by this occupant.

14 ADDITIONAL INJURIES RECORDED BELOW 1 Yes 2 No

LEAVE COLUMNS 16 TO 36 BLANK IF COLUMN 14 IS "NO"

	Inj. No.	Body Region	Aspect	Lesion	System/ Organ	AIS Severity	Injury Source
15-21	4	___	___	___	___	___	___ ___
22-28	5	___	___	___	___	___	___ ___
29-35	6	___	___	___	___	___	___ ___

USE WITH AIS CODES:
8 = Inj. Sev. Unknown
9 = Unk. if Inj.

80 CARD ID 1

NOTE: BE SURE TO INCLUDE ABOVE INJURIES IN OVERALL AIS AND ISS SCORE, OCCUPANT CARD 0.

BEST DOCUMENT AVAILABLE

UPDATE	TEAM	YEAR	MONTH	DAY	SEQUENCE
_ 1	_	_	_ _	_ _	_ _ _ 10

OC

NATIONAL CRASH SEVERITY STUDY

INTRUSION: OCCUPANT CONTACT WITH INTRUDED SURFACES

[11-13] Occupant No. _ _ _

Complete this section *ONLY* if there is evidence that an occupant(s) contacted an intruded internal surface (including seats) of the passenger compartment. An injury need not have resulted from the contact.

		Intrusion Number*	Associated Injury Numbers** 1	Associated Injury Numbers** 2	Intrusion Extent at Point of Contact (Inches)† (G)	Occupant Space Dimension†† (Inches) (H)
[14-21]	A	_ _	_	_	_ _	_ _
[22-29]	B	_ _	_	_	_ _	_ _
[30-37]	C	_ _	_	_	_ _	_ _
[38-45]	D	_ _	_	_	_ _	_ _
[46-53]	E	_ _	_	_	_ _	_ _
[54-61]	F	_ _	_	_	_ _	_ _

*From INTERNAL SURFACES INTRUSION FORM, item 4, column A.

**From OCCUPANT DATA PAGE(S), CASE SUMMARY REPORT. Code 0 if no injury was received from the contact.

†From INTERNAL SURFACES INTRUSION FORM, item 4, column G.

††From INTERNAL SURFACES INTRUSION FORM, item 4, column H.

[80] I.D. 2

* END OF OCCUPANT CONTACT FORM *

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H I

TEAM	YEAR	MONTH	DAY	SEQUENCE
___	___	___ ___	___ ___	___ ___ ___

DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY

HUMAN: MEDICAL DATA SUPPLEMENT

VEHICLE NUMBER ___

OCCUPANT NUMBER ___ ___

Complete this form for each injured occupant and attach a copy of the medical report.

OCCUPANT PATIENT HISTORY

32 **Outpatient Visits** ___ ___ ___
- 0 None
- 1-6 Actual Number
- 7 7 or More → (Record Number)
- 8 Not Applicable
- 9 Unknown

Activity Restriction*

33-34 Bed Rest ___ ___ ___

35-36 Other Restriction (Describe ___ ___________________) ___ ___ ___

37-38 Work Days Lost ___ ___ ___

39-40 Days in Hospital ___ ___ ___

*See Manual for codes used in Columns 33-40 and check page 6, Interview Form.

41 **Whiplash Injury** ___ ___
- 0 Symptoms Appeared Immediately
- 1-6 Actual Days Later
- 7 7 or More Days Later
- 8 Not Applicable
- 9 Unknown

42 **Long Term Disabilities** ___ ___ ___
- 0. None Sustained
- 9. Unknown
- 1. Disability Sustained (Describe ___________________

DATA SOURCE (Code Data Source Beside Specific Codes on Left)

1. Hospital Record
2. Interview
3. Treating
4. Other ___________
5. Interview + Hospital Record
6. Interview + Treating Physician
7. Interview + Other ___________
8. Hospital Record + Other ___________
9. Treating Physician + Other ______

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INJURY DESCRIPTION

More than Six Injuries Sustained ___
1. Yes 2. No 9. Unknown

If more than six injuries were sustained, describe the six severest injuries.

	Inj. No.	Body Region	Aspect	Lesion	System/ Organ	AIS Severity	Injury Source	ICDA	Overall AIS
43-53	1	___	___	___	___	___ 47	___ ___	___ ___ ___.___	___ 76
54-64	2	___	___	___	___	___ 58	___ ___	___ ___ ___.___	
65-75	3	___	___	___	___	___ 69	___ ___	___ ___ ___.___	
	4	___	___	___	___	___	___ ___	___ ___ ___.___	
	5	___	___	___	___	___	___ ___	___ ___ ___.___	
	6	___	___	___	___	___	___ ___	___ ___ ___.___	

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U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

NATIONAL CRASH SEVERITY STUDY: COLLISION SEVERITY

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ACCIDENT IDENTIFICATION

1 ___ UPDATE NUMBER
2 ___ TEAM
3 ___ YEAR
4-5 ___ ___ MONTH
6-7 ___ ___ DAY
8-10 ___ ___ ___ SEQUENCE
11-13 ___ ___ ___ CARD NUMBER

VEHICLE NUMBER ___ 14

IMPACT WITH VEHICLE NO. ___ 15

IMPACT NUMBER ___ 16

IMPACT SPEED (MPH) ___ ___ 17 18

DATA SOURCE (INPUT)

		DELTA "V" MPH				LONG.			LATERAL	
			TOTAL							
Trajectory & Detailed Damge	1									
Trajectory & CDC Only	2	19	20	21	+ - 22	23	24	+ - 25	26	27
Detailed Damage Only	3									
CDC Only	4									
Insufficient Data	9	28	29	30	+ - 31	32	33	+ - 34	35	36

NOTE: Use Codes 1, 2 or 9 only in Column 19, and Codes 3, 4 or 9 only in Column 28.

RELATIVE VELOCITY: Longitudinal + - 37 ___ 38 ___ 39 ___ 40 ___ MPH

Lateral + - 41 ___ 42 ___ 43 ___ 44 ___ MPH

VEHICLE NUMBER ___ 45

IMPACT WITH VEHICLE NO. ___ 46

IMPACT NO. ___ 47

IMPACT SPEED (MPH) ___ ___ 48 49

DATA SOURCE (INPUT)

		DELTA "V" MPH				LONG.			LATERAL	
			TOTAL							
Trajectory & Detailed Damage	1									
Trajectory & CDC Only	2	50	51	52	+ - 53	54	55	+ - 56	57	58
Detailed Damage Only	3									
CDC Only	4									
Insufficient Data	9	59	60	61	+ - 62	63	64	+ - 65	66	67

NOTE: Use Codes 1, 2 or 9 only in Column 50, and Codes 3, 4 or 9 only in Column 59.

RELATIVE VELOCITY: Longitudinal + - 68 ___ 69 ___ 70 ___ 71 ___ MPH

Lateral + - 72 ___ 73 ___ 74 ___ 75 ___ MPH

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NATIONAL CRASH SEVERITY STUDY

ACCIDENT FORM

1. Primary Sampling Unit Number ___ ___ (1 2)

2. Case Number 0 ___ ___ ___ (3 4 5 6)

3. Record Number 1 (7)

4. Transaction Code ___ (8)

5. Version Number 2 (9)

IDENTIFICATION

6. Year of Accident

197___ Code the year in which the accident occurred. ___ (10)

7. Month of Accident

___(01) January	___(07) July
___(02) February	___(08) August
___(03) March	___(09) September
___(04) April	___(10) October
___(05) May	___(11) November
___(06) June	___(12) December

___ ___ (11 12)

8. Day of Week

___(1) Sunday	___(5) Thursday
___(2) Monday	___(6) Friday
___(3) Tuesday	___(7) Saturday
___(4) Wednesday	___(9) Unknown

___ (13)

9. Investigating Police Agency

___ Code assigned numerical value contained in the NCSS Coding Manual.
___(99) Unknown

___ ___ (14 15)

10.1 County of Accident ___ ___ ___ (16 17 18)

10.2 Accident Severity

___(1) Fatal
___(2) Injury - overnight hospitalization
___(3) Injury - transported
___(4) No transport
___(5) Underride (NOTE: Code for all underride accidents.)

___ (19)

10.3 Sampling Fraction

___(1) 100%	___(4) 20%
___(2) 75%	___(5) 15%
___(3) 50%	___(6) 5%

___ (20)

11.1 CRASH Reconstruction

___(1) Completed, damage and trajectory
___(2) Completed, damage only
Unable to complete:
___(3) Rollover
___(4) Vaulting
___(5) Other nonhorizontal force
___(6) Insufficient data
___(7) Skidding sideways
___(8) Yielding fixed object
___(9) Other: ___

___ (21)

12. First Harmful Event

Collision with *Motor Vehicle In Transport*
___(01) Head-on
___(02) Rear-end
___(03) Angle
___(04) Sideswipe, endswipe, and very narrow impact frontal
___(08) Other collision type: ___
___(09) Unknown collision type

Collision with *Pedestrian or Nonmotorist*
___(11) Pedestrian
___(12) Pedacyclist
___(13) Other nonmotorist: ___

Collision with *Stationary Object*
___(31) Motor vehicle not in transport
___(32) Tree (up to 50 cm circumference)
___(33) Tree (over 50 cm circumference)
___(34) Pole - fixed
___(35) Pole - breakaway--did break away
___(36) Pole - breakaway--did not break away
___(37) Movable objects (post, fence, mail box, delineator, etc.)
___(38) Culvert, railroad tracks, curb
___(39) Abutment, retaining wall, bridge support
___(40) Embankment
___(41) Building, rigid
___(42) Building, framed
___(43) Bridge rail
___(44) Guard rail
___(45) Impact attenuator
___(46) Ground
___(47) Median barrier
___(48) Train
___(49) Other stationary objects: ___

Collision with *Nonstationary Object*
___(51) Animal
___(52) Trailer, disconnected in transport
___(53) Train
___(59) Other nonstationary objects: ___

Non-Collision
___(61) Overturned
___(62) Fire or Explosion
___(63) Jackknifed
___(64) Immersion
___(69) Other non-collision: ___

___ ___ (22 23)

13. Relation to Roadway (location of first harmful event)

___(1) On roadway
___(2) On shoulder
___(3) In median
___(4) On roadside
___(5) Outside right-of-way
___(6) Off roadway - location unknown
___(7) In parking lane
___(9) Unknown

___ 24

14. Number of Vehicle Forms Submitted

______ Code only the number of motor vehicles in transport for which a VEHICLE FORM was submitted.

___ ___ 25 26

15. Number of Pedestrian & Nonmotorist Forms Submitted

00 Code only the number of pedestrians and/or nonmotorists for which a PEDESTRIAN & NONMOTORIST FORM was submitted.

0 0 27 28

16. Police Reported Accident Severity

___(1) K - Killed
___(2) A - Incapacitating injury
___(3) B - Nonincapacitating injury
___(4) C - Possible injury
___(5) O - No injury
___(9) Unknown

___ 29

17. Involvement of Hit & Run in Accident

___(1) No
___(2) Yes
___(9) Unknown

___ 30

ADMINISTRATIVE ITEMS

18. Hour of Day

___:___ Code reported military time of accident.
(NOTE: midnight = 2400)
___(9999) Unknown

___ ___ ___ ___ 31 32 33 34

19. Light Conditions

___(1) Daylight
___(2) Dark
___(3) Dark, but lighted
___(4) Dawn
___(5) Dusk
___(9) Unknown

___ 35

20. Atmospheric Conditions

___(1) Normal (no adverse atmospheric related driving conditions)
___(2) Raining
___(3) Sleeting
___(4) Snow falling
___(5) Fog
___(6) Other (e.g., smog, smoke, blowing sand or dust, etc.): ______________________
___(9) Unknown

___ 36

21. Area Type
(NOTE: Use FHWA required individual state definitions for the roadway segment on which the accident occurred.)
___(1) Rural
___(2) Urban
___(9) Unknown

___ 37

22. Road TA-1 Classification

___(01) Interstate
___(02) Other federal aid primary
___(03) Federal aid secondary
___(04) Federal aid urban arterial
___(05) Federal aid urban collector
___(06) Nonfederal aid arterial
___(07) Nonfederal aid collector
___(08) Nonfederal aid local
✓ (99) Unknown

9 9 38 39

23. Class Trafficway

___(01) Interstate
___(02) Other limited access
___(03) Other U.S. route
___(04) Other state route
___(05) Other major artery
___(06) County road
___(07) Local road
___(08) Other road: ______________________
___(99) Unknown

___ ___ 40 41

24. Roadway Section Type

___(01) Non-junction
___(02) Three leg intersection
___(03) Four leg intersection
___(04) More than four leg intersection
___(05) Intersection related
___(06) Interchange area
___(07) Driveway, alley access, etc.
___(08) Railroad grade crossing
___(99) Unknown

___ ___ 42 43

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ENVIRONMENTAL DATA

25. Number of Travel Lanes

___(1) One
___(2) Two
___(3) Three
___(4) Four
___(5) Five
___(6) Six
___(7) Seven or more
___(9) Unknown

44

26. Trafficway Division and Median Type

___(1) Undivided
Divided (median width > to four feet)
___(2) Paved flush--painted or unpainted (i.e., not curbed)
___(3) Curbed
___(4) Unpaved, uncurbed median (e.g., grass, gravel, etc.)
___(5) Median barrier
___(6) Other median type: ______________________
___(9) Unknown

45

27. Access Control

___(1) Full
___(2) Partial
___(3) Uncontrolled
___(9) Unknown

46

28. Direction of Travel Flow

___(1) One way
___(2) Two way
___(9) Unknown

47

29. Shoulder Presence

___(1) No shoulder
___(2) One shoulder
___(3) Two shoulders
___(9) Unknown

48

30. Roadway Alignment

___(1) Straight
___(2) Curve
___(9) Unknown

49

31. Roadway Profile

___(1) Level
___(2) Grade
___(3) Hillcrest
___(4) Sag
___(9) Unknown

50

32. Surface Type

___(1) Concrete
___(2) Bituminous
___(3) Brick, block
___(4) Slag, gravel, or stone
___(5) Dirt
___(6) Other: ______________________
___(9) Unknown

51

33. Surface Condition

___(1) Dry
___(2) Wet
___(3) Snowy, slushy
___(4) Icy
___(5) Other (e.g., sand, dirt, oil): ______________________
___(9) Unknown

52

34. Junction Traffic Controls

___(1) No controls
___(2) Control not functioning
Control Functioned
___(3) Traffic signal
___(4) Stop sign or yield sign
___(5) Railroad crossing control
___(6) Other traffic control: ______________________
___(8) Not applicable
___(9) Unknown

53

35. Accident Occurrence in School Zone

___(1) No
___(2) Yes
___(9) Unknown

54

36. Speed Limit

_______ m.p.h. -- Code actual posted or statutory speed limit.
___(99) Unknown

55 56

37. Restriction of Right-of-Way at Scene
(NOTE: The restriction must have existed prior to this accident.)
___(1) No restrictions
___(2) Narrow bridge (as defined)
___(3) Previous accident
___(4) Maintenance, repair, or construction activity on roadway
___(5) Roadway immersion (e.g., standing water)
___(6) Other roadway restriction: ______________________
___(9) Unknown

57

(NOTE: If more than one restriction exists they should be coded in the order in which they are numbered.)

38. Additional Restriction of Right-of-Way at Scene
(NOTE: See question 37 note above.)
___(3) Previous accident
___(4) Maintenance, repair, or construction activity on roadway
___(5) Roadway immersion (e.g., standing water)
___(6) Other roadway restriction: ______________________
___(7) More than two restrictions
___(8) Not applicable
___(9) Unknown

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SPECIAL STUDIES-INDICATORS

Information Collected From This Accident As A Part of the Special Studies Subsystem

○ NO -- Code 2 for each of questions 39 through 43.

If YES -- Check (✓) each of the studies from the list to the right that were indicated; code 1 for the checked studies and 2 for the studies not checked.

39. ___ Side Intrusion ___ 59

40. ___ Steering Column ___ 60

41. ___ Roof Intrusion ___ 61

42. ___ Motorcycle 2 62

43. ___ Truck Underride ___ 63

COMMENTS:

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NATIONAL CRASH SEVERITY STUDY

ACCIDENT LOG

FORMS: FOR TEAM USE

	Police: __	Accident	Collision Diagram	Pedestrian& Nonmotorist	Vehicle	Driver	Occupant	Medical	CRASH Summary	Slides (Number)
Required:		1	___		___		___	___	___	___
Included:		___	___		___		___	___	___	___

COMPLETED BY TEAM

Duplicate columns 1 through 8 from the first page of this form.

Card Number 1 (9) Stratification __ (10)

	Month	Day	Year
Date of Accident	__ __ 11 12	__ __ 13 14	7 9 15 16
Date Sampled (Listed)	__ __ 17 18	__ __ 19 20	7 9 21 22
Date Assigned to Investigator(s)	__ __ 23 24	__ __ 25 26	7 9 27 28
Date Scene Field Work Completed	__ __ 29 30	__ __ 31 32	7 9 33 34
Completing Person (Initials)			__ __ __ 35 36 37
Date Case Reviewed and Approved for Submission to ZC	__ __ 38 39	__ __ 40 41	7 9 42 43
Completing Person (Initials)			__ __ __ 44 45 46
Date Data Entered (RDE)	__ __ 47 48	__ __ 49 50	7 9 51 52
Completing Person (Initials)			__ __ __ 53 54 55

☐ (1) Case Complete - No Updates Required

☐ (2) Case to be Updated

☐ (3) Case Dropped - Reason: ______________________ __ (56)

COMPLETED BY ZONE CENTER (OPTIONAL)

Type of Review

__(1) All variables __(2) Key variables __ (57)

Case Status

__(1) Complete __(2) Not complete __ (58)

	Month	Day	Year	Initials
Date Received at Zone Center	__ __ 59 60	__ __ 61 62	7 9 63 64	__ __ __ 65 66 67
Date Review Number One Completed GO TO 2 (9)	__ __ 68 69	__ __ 70 71	7 9 72 73	__ __ __ 74 75 76
Date Review Number Two Completed	__ __ 10 11	__ __ 12 13	7 9 14 15	__ __ __ 16 17 18
Date Review Number Three Completed	__ __ 19 20	__ __ 21 22	7 9 23 24	__ __ __ 25 26 27
Date Review Number Four Completed	__ __ 28 29	__ __ 30 31	7 9 32 33	__ __ __ 34 35 36
Date Review Number Five Completed	__ __ 37 38	__ __ 39 40	7 9 41 42	__ __ __ 43 44 45
Date Medical Record Updates Received	__ __ 46 47	__ __ 48 49	7 9 50 51	__ __ __ 52 53 54
Date Official Record Updates Received	__ __ 55 56	__ __ 57 58	7 9 59 60	__ __ __ 61 62 63
Date Case Corrections Entered into Data Base GO TO 3 (9)	__ __ 64 65	__ __ 66 67	7 9 68 69	__ __ __ 70 71 72
Date Update Corrections Entered into Data Base	__ __ 10 11	__ __ 12 13	7 9 14 15	__ __ __ 16 17 18

COMPLETED BY ZONE CENTER

_-Not in error, not to be updated, and not missing
1-To be updated
2-Error (not correctable)
3-Error (correctable)
4-Questionable
5-Updated and corrected
6-Sequencing error in CDC's or injury data
7-Error incorrectly noted
8-Data entry in error
9-Unknown coded on field form

NOTE: DUPLICATE COLUMNS 1 THROUGH 8 AND GO TO CARD: 4 (9)

Variable	1	2	3	4	5	6	7	8	9	10.1	10.2	10.3	11.1	12	13	14	[redacted]	16	17	18	19
Response	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	[redacted]	27	28	29	30

Variable	20	21	[redacted]	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	[redacted]	43
Response	31	32	[redacted]	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	[redacted]	54

NATIONAL CRASH SEVERITY STUDY

ACCIDENT COLLISION DIAGRAM

Primary Sampling Unit Number __ __

Case Number 0 __ __ __

Reference Point: ______________________

Reference Line: ______________________

ITEM	Distance and Direction from Reference Point	Distance and Direction from Reference Line

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KEY TO SLIDE(S) QUALITY CONTROL CHECKS

SUBJECT QUALITY - EXTERIOR SLIDES

(1) Good - Slide coverage is complete in that it includes all areas of all vehicles (whether or not damaged); it is possible to generate an accurate CDC and check damage measurements if applicable.

(2) Fair - Slide coverage is only broad enough (for at least one vehicle) to include the areas which were reportedly damaged (areas which are reportedly undamaged are not shown); it is possible to generate a reasonable CDC and check damage measurements if applicable.

(3) Poor - Slide coverage excludes one or more areas of reported damage (for at least one vehicle); it is difficult to generate an accurate CDC and check damage measurements if applicable.

(9) No Slides

NOTE: The location of the vehicles is considered at the time the slides were taken. If another vehicle or object obscured the damaged area so it could not be photographed, then that vehicle(s) should be categorized (1) or (2) based on the slides taken. If a damaged area could have been photographed but was not, then that vehicle(s) should be categorized (3).

SUBJECT QUALITY - INTERIOR SLIDES

(1) Good - Slides show all areas of contact and/or areas of probable contact for all vehicles.

(2) Fair - Slides show only contact areas or an overall view; probable areas of contact are omitted for at least one vehicle.

(3) Poor - Obvious and/or probable contact areas were not photographed for at least one vehicle.

(9) No Slides

SUBJECT QUALITY - SCENE SLIDES

(1) Good - Slides show all necessary roadways and physical evidence including all objects contacted.

(2) Fair - Slides show general area of accident site and objects contacted; additional pictures would have been helpful.

(3) Poor - Slides do not adequately show area of impact or path of travel off-road, or at least one object definitely contacted was omitted.

(9) No Slides

SLIDE QUALITY - FOR ALL PICTURES

(1) Good - All areas in the vast majority of all of the slides are clearly defined; the subject has proper framing and exposure.

(2) Fair - All areas in most of the slides are distinguishable but some camera adjustment could have been made. For example:
  (a) underexposed (too dark)
  (b) overexposed (too light)
  (c) out of focus (usable slide)

(3) Poor - The area photographed in many of the slides cannot be seen. Examples of some failures are:
  (a) underexposed (too dark)
  (b) overexposed (too light)
  (c) out of focus (usable slide)
  (d) flash not used
  (e) flash reflection
  (f) distance

(9) No Slides

ACCIDENT COLLISION DIAGRAM

Indicate

North

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NATIONAL CRASH SEVERITY STUDY

ACCIDENT COLLISION DIAGRAM LOG

COMPLETED BY TEAM

Primary Sampling Unit Number	__ __ (1 2)	Transaction Code	1 (8)
Case Number	0 __ __ __ (3 4 5 6)	Card Number	1 (9)
Record Number	6 (7)		

Month Day Year Initials

☐ (1) Scene not located. Reason: ________________

☐ (2) Scene located and roadway data mapped on diagram, but insufficient data even to produce a rough sketch of the collision events.

☐ (3) Diagram completed. [Must mark (1), (2), or (3) below]

__ (10)

Date above box marked. __ __ __ __ 7 9 __ __ __ (11 12 13 14 15 16 17 18 19)

Mark the box below which best indicates your CONFIDENCE in the Diagram

☐ (1) Diagram reasonably represents locations and headings of vehicle(s), object(s), and pedestrian(s) or nonmotorist(s) and most of these items were plotted on the basis of discernible physical evidence which was documented by measurements and and photographs. Interview data may be used sparingly for those few items which were not supported by physical evidence.

☐ (2) Diagram more than likely represents locations and headings of items in the crash dynamics, but is considered a logical approximation since most were not supported by accident induced physical evidence. This classification may be used when the converging trajectory(ies) of the vehicle(s) is (are) supported by damage to the vehicle and the vehicle(s) may be logically located at impact due to environmental constraints (e.g., restricted areas for conflicts at local intersections, established traffic patterns, etc.), as well as at final rest through credible interviewees, newspaper photographs, etc.

☐ (3) Diagram should only be considered to be a sketch since there is little or no physical evidence to support the crash dynamics. Furthermore, the environmental constraints are too broad to establish impact positions, and the final rest positions are not supported.

☐ (4) No diagram of collision events.

__ (20)

☐ (1) CRASH program is inapplicable for this collision and/or vehicle(s), or there is inadequate data for either a trajectory or damage reconstruction.

Type of CRASH reconstruction completed:

☐ (2) Damage only;

☐ (3) Trajectory and Damage.

__ (21)

Date CRASH reconstruction was completed. __ __ __ __ 7 9 __ __ __ (22 23 24 25 26 27 28 29 30)

Date slides were collated and indexed. __ __ __ __ 7 9 __ __ __ (31 32 33 34 35 36 37 38 39)

COMPLETED BY ZONE CENTER

VEHICLE EXTERIOR		VEHICLE INTERIOR		SCENE	
Number of Slides	__ __ (40 41)	Number of Slides	__ __ (44 45)	Number of Slides	__ __ (48 49)
Subject Quality	__ (42)	Subject Quality	__ (46)	Subject Quality	__ (50)
Slide Quality	__ (43)	Slide Quality	__ (47)	Slide Quality	__ (51)

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NATIONAL CRASH SEVERITY STUDY

VEHICLE FORM

1. Primary Sampling Unit Number ___ ___ 1 2

2. Case Number 0 ___ ___ ___ 3 4 5 6

3. Record Number 3 7

4. Transaction Code ___ 8

5. Version Number 2 9

IDENTIFICATION

6. Vehicle Number ___ ___ 10 11

7. Number of Occupant Forms Submitted

_____ Code only the number of occupants in this vehicle for which an OCCUPANT FORM was submitted. ___ ___ 12 13

8. Vehicle Role

___(1) Striking unit
___(2) Struck unit
___(3) Both striking and struck
___(4) Non-collision
___(9) Unknown

___ 14

9. Police Indicated Manner of Leaving Scene

___(1) Driven
___(2) Towed
___(3) Abandoned
___(9) Unknown

___ 15

EXTERIOR ITEMS

10. Vehicle Model Year

_____ Code the last two digits of the year the vehicle was manufactured.
___(99) Unknown

___ ___ 16 17

11. Vehicle Make

____
Applicable codes are found in your NASS Coding and Validation Manual.
___(000) Unknown

___ ___ ___ 18 19 20

12. Vehicle Model

____
Applicable codes are found in your NASS Coding and Validation Manual.
___(00) Unknown

___ ___ 21 22

13. Vehicle Type

Automobiles
___(01) 2-door passenger car
___(02) 4-door passenger car
___(03) Station wagon, excluding van or truck based
___(04) Convertible
___(05) On/off road vehicle (e.g., Jeep, Scout, Bronco, Blazer, etc.)
___(06) Car, pickup body (e.g., El Camino, etc.)
___(08) Other type auto: __________
___(09) Unknown type automobile

Trucks
___(11) Pickup
___(12) Van (passenger, cargo, van-based station wagon)
___(13) Station wagon, truck based (e.g., I.H. Travelall, etc.)
___(14) Single unit truck (10,000 lbs < G.V.W. < 19,501 lbs)
___(15) Single unit truck (19,500 lbs < G.V.W. < 26,001 lbs)
___(16) Single unit truck (G.V.W. > 26,000 lbs)
___(19) Single unit truck (G.V.W. unknown)
___(21) Two unit truck-tractor with semi-trailer or truck with cargo trailer
___(22) Multi-unit truck or truck-tractor with two or more trailers
___(23) Truck-tractor only
___(29) Unknown truck type

Buses
___(31) School bus
___(32) Intercity bus
___(33) Urban bus
___(38) Other bus: __________
___(39) Unknown bus type

Motorcycles
___(41) Motorcycle
___(42) Mo-ped
___(48) Other (e.g., minibikes, motor scooters, sidecar cycle): __________
___(49) Unknown type motorcycle

Special Vehicles
___(51) Snowmobiles
___(52) Farm vehicles, except trucks
___(53) Dune or swamp buggies
___(54) Construction equipment other than trucks
___(55) Ambulance, emergency vehicle
___(56) Large limousine - more than four doors
___(57) Self-propelled campers and motor homes
___(58) Fire trucks
___(99) *UNKNOWN*

___ ___ 23 24

14. Towed Trailing Unit

___(1) None
___(2) Travel trailer/camper
___(3) Other car trailer
___(4) Fifth wheel trailer
___(5) Truck trailer
___(6) Boat trailer
___(7) Other type unit: __________
___(9) Unknown

9'1

___ 25

DAMAGE DESCRIPTION

Wheels Locked by Damage

RF __
LF __
RR __
LR __

(1) Yes, (2) No, (8) NA, (9) Unk.

TYPE of TRANSMISSION

__ Manual __ Automatic

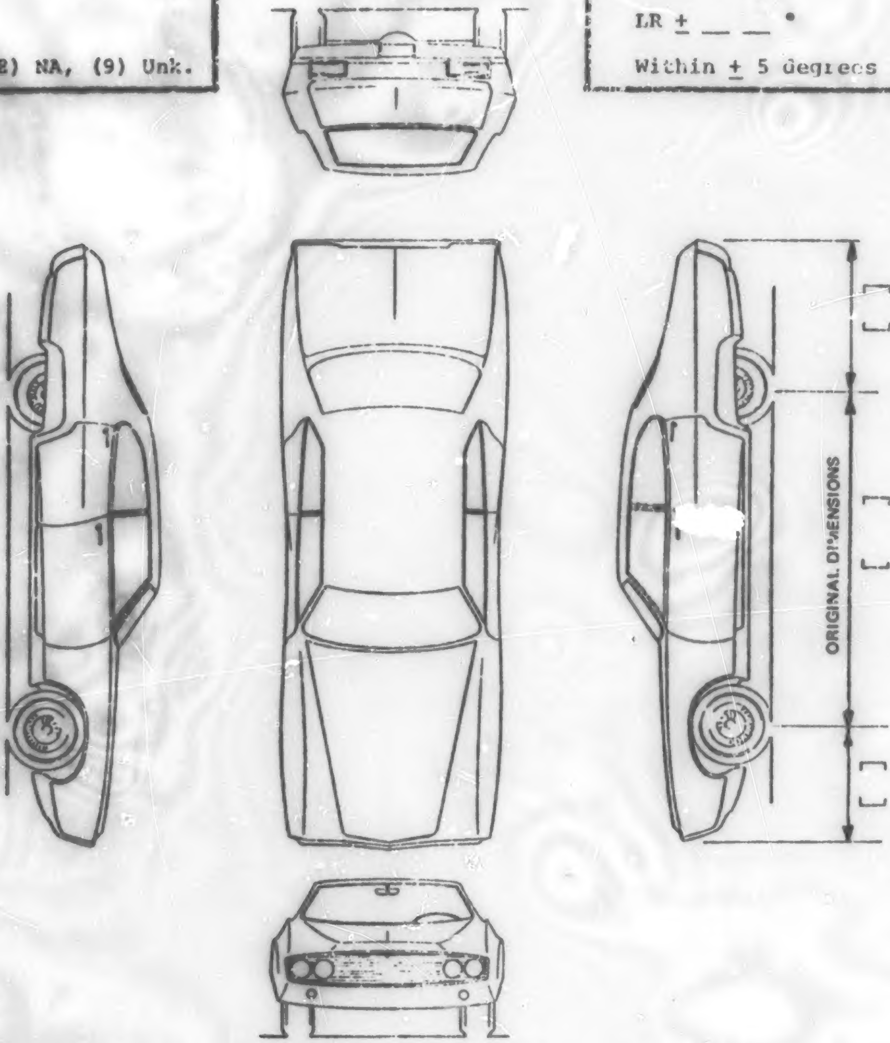
Average Track: ______.__

Maximum Width: ______.__

WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)

RF ± __ __ °
LF ± __ __ °
RR ± __ __ °
LR ± __ __ °

Within ± 5 degrees



List any tires which are deflated due to damage on the back of this page.

NOTE: Measure C_1 to C_6 from *driver* to *passenger* side in *front* or *rear* impacts--*rear* to *front* in *side* impacts.

Direct L	Direct D±	Impact Number	L	C_1	C_2	C_3	C_4	C_5	C_6	D±
		1								
		2								
		3								
		4								

NOTE: If pulling trailer sketch type of trailer and damage received on reverse side.

NOTE: Sketch new perimeter and shade damage. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.)

5/79

84

COLLISION DEFORMATION CLASSIFICATION by IMPACT SEQUENCE

Specific Impact Number	Object Contacted	Direction of Force (degrees)	Deformation Location	Specific Horizontal Location	Specific Vertical Location	Type of Damage Distribution	Deformation Extent Guide	Common Impact Number
1	__ __	__ __ __	__	__	__	__	__ __	____
2	__ __	__ __ __	__	__	__	__	__ __	____
3	__ __	__ __ __	__	__	__	__	__ __	____
4	__ __	__ __ __	__	__	__	__	__ __	____

Reduction Section

OBJECT CONTACTED

(01) through (30)

If the object contacted by the vehicle under consideration was another motor vehicle in transport, code the Vehicle Number assigned to that vehicle.

Collision with *Stationary Object*

(31) Motor vehicle not in transport
(32) Tree (up to 50 cm around)
(33) Tree (over 50 cm around)
(34) Pole - fixed
(35) Pole - breakaway--did break away
(36) Pole - breakaway--did not break away
(37) Movable objects (post, fence, mail box, delineator, etc.)
(38) Culvert, railroad tracks, curb
(39) Abutment, retaining wall, bridge support
(40) Embankment
(41) Building, rigid
(42) Building, framed
(43) Bridge rail
(44) Guard rail
(45) Impact attenuator
(46) Ground
(47) Median barrier
(48) Train
(49) Other stationary objects

Collision with *Nonstationary Objects*

(51) Animal
(52) Trailer, disconnected in transport
(53) Train
(59) Other nonstationary objects

(71) through (96)

If the object contacted by the vehicle under consideration was pedestrian or nonmotorist, add seventy (70) to the assigned Pedestrian & Nonmotorist Number, and code the resultant sum.

(97) Other object
(98) Not applicable
(99) Unknown

DIRECTION OF FORCE

(00) Nonhorizontal force
(01) 1 o'clock
(02) 2 o'clock
(03) 3 o'clock
(04) 4 o'clock
(05) 5 o'clock
(06) 6 o'clock
(07) 7 o'clock
(08) 8 o'clock
(09) 9 o'clock
(10) 10 o'clock
(11) 11 o'clock
(12) 12 o'clock
(98) Not applicable
(99) Unknown

TYPE OF DAMAGE DISTRIBUTION

(W) Wide impact area
(N) Narrow impact area
(S) Sideswipe
(O) Rollover (includes side)
(A) Overhanging structure
(E) Corner
(8) Not applicable
(9) Unknown

DEFORMATION LOCATION

(F) Front
(R) Right side
(B) Back side
(L) Left side
(T) Top
(U) Undercarriage
(8) Not applicable
(9) Unknown

SPECIFIC VERTICAL LOCATION

(A) All
(H) Top of frame to top
(E) Everything below belt line
(G) Belt line and above
(M) Middle--top of frame to belt line or hood
(L) Low--top of frame, frame, and below
(X) Undercarriage
(8) Not applicable
(9) Unknown

SPECIFIC HORIZONTAL LOCATION

(D) Distributed--side or end
(L) Left--front or rear
(C) Center--front or rear
(R) Right--front or rear
(F) Side front--left or right
(P) Side center section--L or R
(B) Side rear--left or right
(Y) Side (F + P) or end (L + C)
(Z) Side (P + B) or end (C + R)
(8) Not applicable
(9) Unknown

*DEFORMATION EXTENT GUIDE**

(01) One
(02) Two
(03) Three
(04) Four
(05) Five
(06) Six
(07) Seven
(08) Eight
(09) Nine
(98) Not applicable
(99) Unknown

*When utilizing the CRASH program only one of these two digits can be used; drop the leading zero.

Indicate the two most severe impacts from those listed above.

Rank order the above CDC's on the basis of the CRASH program results, if used. If CRASH is exercised on none, or no more than one CDC (where two or more exist), subjectively order the two most severe impacts (in terms of assumed change in velocity, delta "V").

DELTA "V"	Object Contacted	Direction of Force	Deformation Location	Specific Horizontal Location	Specific Vertical Location	Type of Damage Distribution	Deformation Extent Guide
HIGHEST	15. __ __ 26 27	16. __ __ 28 29	17. __ 30	18. __ 31	19. __ 32	20. __ 33	21. __ __ 34 35
Secondary	22. __ __ 36 37	23. __ __ 38 39	24. __ 40	25. __ 41	26. __ 42	27. __ 43	28. __ __ 44 45

Coding Section

BEST DOCUMENT AVAILABLE

29. Documentation of More Than Two CDCs

___(1) Yes
___(2) No
___(8) Not applicable
___(9) Unknown

46

INTERIOR ITEMS

30. Number of VIN Characters

_______ characters -- Code the actual number of alphanumeric characters which comprise the vehicle's VIN number.
___(99) Unknown

47 48

31. Vehicle Identification Number

Code the seven left most alphanumeric characters.
___(9999999) Unknown
Left justify!
Slash zeros "0"

49 50 51 52 53 54 55

32. Registration of Vehicle

___(1) Not registered
___(2) In-state (at least)
___(3) Out-of-state (only)
___(4) Other registration (e.g., federal, foreign, military): ______________________________
___(9) Unknown

56

33. Vehicle Special Use (this trip)

___(1) None
___(2) School related
___(3) Emergency related
___(9) Unknown

57

34. Odometer Reading

_______ miles -- Code mileage to the nearest 1,000 miles.
___(001) Less than 1,500 miles
___(998) Not applicable
___(999) Unknown

58 59 60

35. Passenger Compartment Integrity

___(01) No integrity loss
Yes, integrity was lost through:
___(02) Windshield
___(03) Door
___(04) Roof
___(05) Windshield & door
___(06) Windshield & roof
___(07) Door & roof
___(08) Windshield, door & roof
___(98) Not applicable
___(99) Unknown

61 62

36. Passenger Compartment Intrusion (NOTE: Code the area in terms of the most severe intrusion.)

___(01) None
___(02) Front (i.e., steering column, dash)
___(03) Right side (i.e., door[s] with or without sill override)
___(04) Left side (i.e., door[s] with or without sill override)
___(05) Rear (i.e., trunk, rear seat intruded upon)
___(06) Bottom (i.e., floor)
___(07) Top (i.e., windshield, "A", "B", "C", or "D" pillar[s], roof)
___(08) Two or more areas
___(98) Not applicable
___(99) Unknown

63 64

37. Magnitude of Intrusion

___(1) Less than five centimeters
___(2) Between five and fifteen centimeters
___(3) Greater than fifteen centimeters
___(8) Not applicable
___(9) Unknown

65

38. Fire Occurrence

___(1) No fire
Yes, fire occurred
___(2) Started in vehicle, minor
___(3) Started in vehicle, major
___(4) Started external to vehicle, minor
___(5) Started external to vehicle, major
___(6) Origin unknown
___(9) Unknown occurrence

66

RESTRAINT SYSTEM		Front Seat: Left	Front Seat: Middle	Front Seat: Right	Second Seat: Left	Second Seat: Middle	Second Seat: Right	Third Seat: Left	Third Seat: Middle	Third Seat: Right	Other Position or Unit*
ACTIVE	Availability	___	___	___	___	___	___	___	___	___	___
	Indication of Usage	___	___	___	___	___	___	___	___	___	___
PASSIVE	System	___	___	___	___	___	___	___	___	___	___
	Defeated	___	___	___	___	___	___	___	___	___	___

Active Restraint System - Availability

(1) None
(2) Lap belt and shoulder harness
(3) Lap belt
(4) Shoulder harness
(5) Helmet
(6) Child safety seat
(7) Other restraint: ___
(9) Unknown

Active Restraint System - Indication of Usage

(1) None (includes unavailability
(2) Lap belt and shoulder harness
(3) Lap belt
(4) Shoulder harness
(5) Helmet
(6) Child safety seat - in proper use
(7) Other restraint used
(9) Unknown

Passive Restraint System

(1) None Available
(2) Air bag - deployed
(3) Air bag - did not deploy
(4) Passive belt
(5) Other restraint: ___
(9) Unknown

Passive Restraint Defeated

(1) No (includes unavailability
Yes
(2) Passive belt not worn
(3) Air bag disconnected
(4) Air bag not reinstalled
(5) Other restraint
(9) Unknown

* Specify the Other Position or Unit referenced: ___

INDICATIONS of EJECTION

___ Not ejected
___ Not applicable

If ejection is suspected or reported, indicate the avenue; for multiple avenues number them and utilize the same numbers consistently throughout.

Medium Status
___ Open
___ Separation
___ Closed, closed when damaged
___ Status unknown

Ejection Area
___ Windshield
___ Left front
___ Right front
___ Left rear
___ Right rear
___ Rear
___ Roof (convertible or sun roof)
___ Other area (e.g., sidecar, back of pickup, etc.)
___ Unknown

Ejection Medium
___ Door
___ Open roof structure
___ Fixed windows
___ Other medium type
___ Unknown

Operable windows
___ Roll down type
___ Hinged type
___ Sliding type
___ Other type window

CHECK ALL AREAS of SUSPECTED OCCUPANT CONTACT

FRONT
___ Windshield
___ Mirror
___ Steering assembly, including transmission selector lever when column mounted
___ Add-on equipment (e.g., CB, tape deck, air conditioner)
___ Instrument panel and below, excluding foot controls and parking brake
___ Other front object

SIDE
___ Side interior surface, excluding hardware or armrests
___ Side hardware or armrests
___ Roof pillar supports
___ Window glass or frame
___ Other side object

INTERIOR
___ Seat, back support
___ Belt restraint system
___ Head restraint
___ Air cushion
___ Other occupants
___ Interior loose objects
___ Other interior object

ROOF
___ Front header
___ Rear header
___ Roof side rails
___ Roof or convertible top

FLOOR
___ Floor
___ Floor or console mounted transmission lever, including console
___ Parking brake handle
___ Foot controls including parking brake

REAR
___ Backlight (rear window)
___ Backlight storage rack, door, etc.
___ Other rear objects

EXTERIOR of OCCUPANT'S VEHICLE
___ Hood
___ Outside hardware (e.g., outside mirror, antenna)
___ Other exterior surface or tires
___ Unknown exterior objects

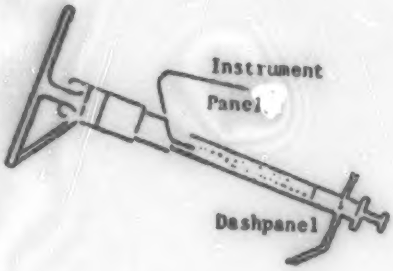
NON-CONTACT INJURY
___ Non-contact injury source (impact force)

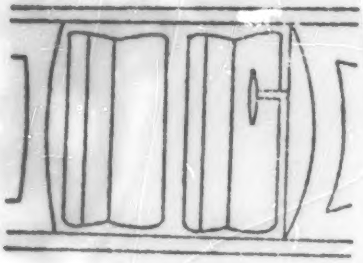
___ Injured, unknown source
___ Not applicable - NO INJURY
___ Unknown if injured

BEST DOCUMENT AVAILABLE

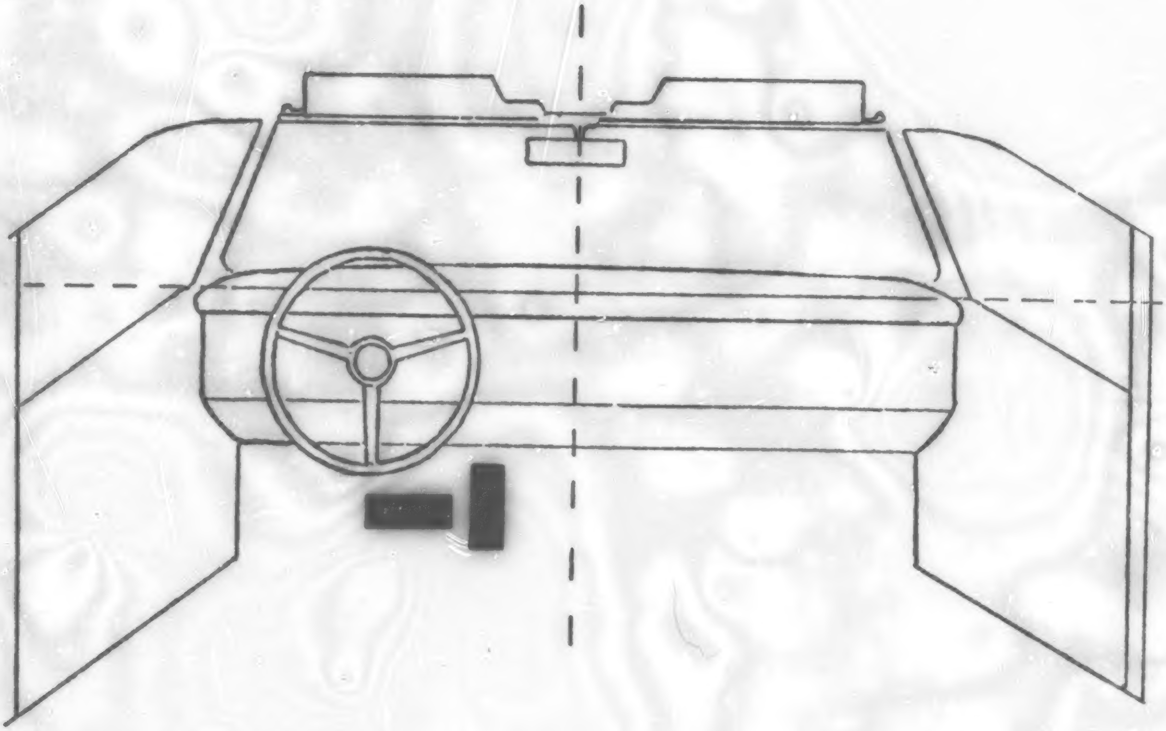
VEHICLE INTERIOR

POINTS OF OCCUPANT CONTACT





INTERIOR SKETCH



Sketch controls in appropriate positions, if contacted. Sketch all occupant contact points and code on preceeding page. Dash lines indicate center of instrument panel-windshield area and top of panel for measurement purposes.

SUPPLEMENTAL ITEMS

39. Type of Most Severe Impact

___(01) Head-on: with vehicle
___(02) Rear-end: struck other vehicle
___(03) Rear-end: struck by vehicle
___(04) Angle: striking other vehicle
___(05) Angle: struck - left side
___(06) Angle: struck - right side
___(07) Sideswipe, endswipe, and very narrow impact frontal
___(08) Front impact with object
___(09) Side impact with object
___(10) Rear impact with object
___(11) Impact with pedestrian or nonmotorist
___(12) Other impact: ________
___(98) Not applicable (Non-Collision)
___(99) Unknown

67 68

40. Rollover Involvement

___(1) Yes
___(2) No
___(9) Unknown

69

41. Jackknife Involvement

___(1) Yes
___(2) No
___(9) Unknown

70

42. Submission of Potential Safety Problem Bulletin

___(1) Yes
___(2) No
___(9) Unknown

71

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight

______ pounds -- Code weight to the nearest 100 pounds.
___(001) Less than 150 pounds
___(997) 99,650 lbs or more
___(999) Unknown

72 73 74

44. Vehicle Cargo Weight

______ pounds -- Code weight to the nearest 100 pounds.
___(000) Less than 50 pounds
___(997) 99,650 lbs or more
___(999) Unknown

75 76 77

45. Investigator Reported Source of Cargo Weight

___(1) No cargo
___(2) Measured
___(3) Estimated
___(4) Rated capacity
___(9) Unknown: source or weight

78

CRASH PROGRAM

HIGHEST	Secondary	HIGHEST

46. Total Delta V

______ nearest k.p.h. ______
(NOTE: 000 means less than 0.5 k.p.h.)
___(999) Unknown

79 80 81

47. Longitudinal Component of Delta V

______ nearest k.p.h. ______
(NOTE: 000 means greater than -0.5 and less than 0.5 k.p.h.)
___ (_999) Unknown

± 82 83 84 85

48. Lateral Component of Delta V

______ nearest k.p.h. ______
(NOTE: 000 means greater than -0.5 and less than 0.5 k.p.h.)
___(_999) Unknown

± 86 87 88 89

49. Energy Absorption

______ nearest 100 newton·meters [joules] ______
(NOTE: 0000 means less than 50 newton·meters.)
___(9999) Unknown

90 91 92 93

POLICE REPORT

50. Estimated Travel Speed

______ nearest m.p.h.
(NOTE: 00 means stopped.)
___(97) 97 m.p.h. or higher
___(99) Unknown

94 95

50.1 Applicable Vehicle

___(1) Yes
___(2) No

96

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NATIONAL CRASH SEVERITY STUDY

VEHICLE LOG

COMPLETED BY TEAM

Duplicate columns 1 through 8 from the first page of this form.

Card Number 1 (9)

Duplicate columns 10 and 11 from the first page of this form.

Vehicle Inspection

___(1) Inspected on first visit
___(2-6) Code the actual number of locations visited (including follow-ups to the same location)
___(7) Seven or more visits
___(8) Not inspected
___(9) Unknown

___ 13

Source of Vehicle Data

___(1) Inspection at repair/tow facility
___(2) Inspection at home/work place
___(3) Inspection other: ____________
___(4) Not inspected (photos or repair data obtained)
___(5) Not inspected (no data)
___(9) Unknown

___ 12

	Month		Day		Year		Initials		
Date decision was made not to further attempt to inspect vehicle. Reason: ____________	___ 14	___ 15	___ 16	___ 17	7 18	9 19	___ 20	___ 21	___ 22
Date vehicle inspected and field data elements obtained.	___ 23	___ 24	___ 25	___ 26	7 27	9 28	___ 29	___ 30	___ 31

☐ (1) CRASH program inapplicable for this vehicle, or there is insufficient data for trajectory or damage reconstruction of the most severe (highest) impact associated with this vehicle (variables V46 through V49=Unknown).

☐ (2) Results from CRASH program output are transferred to Vehicle Form (variables V46 through V49).

___ 32

☐ (1) Final coding of CDCs, bottom of page 3, completed without exercising CRASH program since it is inapplicable for this type of collision, the vehicle has sustained but one impact and there is insufficient data for a trajectory reconstruction to aid in the determination of final force directions, or the vehicle is outside the scope of CDC-SAE J224a.

☐ (2) Final coding of CDCs, bottom of page 3, completed, given the CRASH program was exercised for any impact experienced by this vehicle. NOTE: the CRASH program aids in refining final Directions of Force (trajectory algorithm) and ranking the severities (delta-V) when multiple impacts occur to the same vehicle.

___ 33

Date Collision Deformation Classification (C.D.C.), page 3, completed. NOTE: This task is applicable even if only 8s, 9s, 98s, or 99s are the codes used.

___ 34 ___ 35 ___ 36 ___ 37 7 38 9 39 ___ 40 ___ 41 ___ 42

COMPLETED BY ZONE CENTER

- _-Not in error, not to be updated, and not missing
- 1-To be updated
- 2-Error (not correctable)
- 3-Error (correctable)
- 4-Questionable
- 5-Updated and corrected
- 6-Sequencing error in CDC's or injury data
- 7-Error incorrectly noted
- 8-Data entry in error
- 9-Unknown coded on field form

NOTE: DUPLICATE COLUMNS 1 THROUGH 8 AND GO TO CARD: 2 (9)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Response	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Variable	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Response	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
Variable	50.1																								
Response	60																								

90

BEST DOCUMENT AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM

CONTINUOUS SAMPLING SUBSYSTEM

VEHICLE FORM SUPPLEMENT
SPECIAL STUDY CHECKOFF

1. Primary Sampling Unit Number ___ ___ 1 2
2. Case Number ___ ___ ___ ___ 3 4 5 6
3. Record Number 3 7
4. Transaction Code 1 8
5. Version Number 2 9
6. Vehicle Number ___ ___ 10 11

51. Is this Vehicle A Motorcycle (V13 = 41 or 49)

___(1) Yes -- Complete special study #1 (Motorcycle), then STOP! (NOTE: Code "not applicable" for remaining questions.)
___(2) No

12

52. Is This Vehicle a Passenger Car, Light Truck, or Van [V13 = 01-13, or 55, 56, or 58 (only where a CDC may be coded)]

___(1) Yes
___(2) No -- STOP! No special studies apply (NOTE: Code "not applicable for remaining questions.)
___(8) Not applicable

13

53. Was Sufficient Damage Information Obtained for This Vehicle to Enable the Special Studies Determinations

___(0) NO -- Damage information is insufficient to enable one to determine if contact occurred in one of the areas focused upon in the special studies--STOP! (NOTE: Code "not applicable" for remaining questions.)
___(1) YES -- Vehicle inspected (NOTE: Other sources may also be used.)

YES -- No inspection, but information from:
___(2) interviews
___(3) repair person(s) or photographs
___(4) police report
___(5) other vehicles or objects
___(6) other sources (specify) ______________________
___(7) combination of sources (specify) ______________________
___(8) Not applicable

14

54. Was This Vehicle Towed Due to Damage

___(1) Yes
___(2) No -- Answer questions 55, 56, and 57 as "not applicable", then continue with question 58.
___(8) Not applicable

15

55. Did This Vehicle Hit the Side or Rear of a Heavy Truck (V13 = 14-22, 29, 54, or 58)

___(1) Yes -- Complete special study #2 (Underride)
___(2) No
___(8) Not applicable
___(9) Unknown

16

56. Is This Vehicle a Full-sized Passenger Car or Larger (V12 = 02, 03, 05, 11-13, 15, 16, 22, or 33)

___(1) Yes
___(2) No -- Answer question 57 "not applicable", then continue with question 58.
___(8) Not applicable
___(9) Unknown -- Answer question 57 "not applicable", then continue with question 58.

17

57. Was the Initial Crash Event For This Vehicle a Rear Impact (Primary Direction of Force for this vehicle is equal to 04-08) or a Rollover

___(1) Yes
___(2) No -- Complete special study #3 (Steering Column)
___(8) Not applicable
___(9) Unknown

18

58. Was the Side Surface ("A" pillar through last passenger compartment pillar) of This Vehicle Directly Contacted Below the Beltline

___(1) Yes -- Complete special study #4 (Lower Side Surface)
___(2) No
___(8) Not applicable
___(9) Unknown

19

59. Did the Roof Sustain Direct Contact from an Impact

___(1) Yes -- Complete special study #5 (Roof Crash Performance Assessment)
___(2) No
___(8) Not applicable
___(9) Unknown

20

ATTACH THIS FORM AT THE END
OF THE VEHICLE FORM

4/79

NATIONAL ACCIDENT SAMPLING SYSTEM

CONTINUOUS SAMPLING SUBSYSTEM

SPECIAL STUDY CHECKOFF LOG

FORMS (THIS VEHICLE ONLY): FOR TEAM USE

	Special Study Checkoff	Motorcycle Vehicle Supplement	Motorcycle Driver Supplement	Motorcycle Occupant Supplement	Underride Vehicle Supplement	Steering Column Supplement	Side Intrusion Supplement	Roof Intrusion Supplement
Required:	1	___	___	___	___	___	___	___
Included:	___	___	___	___	___	___	___	___

COMPLETED BY TEAM

Duplicate columns 1 through 6 from the reverse side of this form.

Record Number 0 7 (7, 8)

Card Number 1 (9)

Duplicate columns 10 through 19 from the reverse side of this form.

Investigator's Initials ___ ___ ___ (20, 21, 22)

_ - Not in error, not to be updated, and not missing
1 - To be updated
2 - Error (not correctable)
3 - Error (correctable)
4 - Questionable
5 - Updated and corrected
6 - Sequencing error in CDC's or injury data
7 - Error incorrectly noted
8 - Data entry in error
9 - Unknown coded on field form

☐ (1) Special Study(s) Complete - No Medical Data Expected After Initial Submission

Expect Medical Updates After Initial Submission for (check one only):

☐ (2) Any Motorcycle Occupant

☐ (3) Driver Only--Steering Column

☐ (4) Any Occupant--Side Intrusion

☐ (5) Any Occupant--Roof Intrusion

☐ (6) Driver Only--Steering Column and Any Occupant--Side Intrusion

☐ (7) Driver Only--Steering Column and Any Occupant--Roof Intrusion

☐ (8) Any Occupant--Side Intrusion and Any Occupant--Roof Intrusion

☐ (9) Driver Only--Steering Column and Any Occupant--Side Intrusion and Any Occupant--Roof Intrusion

___ (23)

COMPLETED BY ZONE CENTER

Variable	1	2	3	4	5	6	51	52	53	54	55	56	57	58	59
Response	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38

NATIONAL ACCIDENT SAMPLING SYSTEM SPECIAL STUDIES SUBSYSTEM

SIDE INTRUSION FORM

1. Primary Sampling Unit Number ___ ___ (1 2)

2. Case Number ___ ___ ___ ___ (3 4 5 6)

3. Special Study Number 0 4 (7 8)

4. Record Number 3 (9)

5. Card Number 1 (10)

6. Vehicle Number ___ ___ (11 12)

LOWER SIDE SURFACE ASSESSMENT

When To Use This Form: Complete this form whenever an external crushing force has been applied to the side surface of the vehicle as a result of a side contact. The force can be from any direction but must crush the exterior side skin inward.

Photographic Instructions:

[Internal]--Photograph each side surface intrusion. Take at least 2 views, so as to best depict the location and magnitude of the intrusion.

[External]--Photograph each side surface zone where the side surface was contacted by a crushing force. Take at least 2 views, so as to best depict the location and magnitude of the crush.

Side Surface Defined: The side surface of the vehicle is defined as the area extending from the A-pillar to the last passenger compartment pillar and from the bottom edge of the door sill/rocker panel (extended) to the belt line. Window glass and upper pillars are not included in this area. The side surface consists of up to three zones (depending upon the vehicle) defined as: (1) front--the areas between the A and B pillars, (2) back--the area between the B and C pillars, and (3) rear--the area between the C and D pillars.

Side Surface Zones
(NOTE: Indicate which component is located in each zone to make up the side surface.)

7. 8. 9. 10. 11. 12.

Front L	Front R	Back L	Back R	Rear L	Rear R	Zone: L=Left, R=Right
___	___	___	___	___	___	(1) Door
___	___	___	___	___	___	(2) Panel
___	___	___	___	___	___	(8) Not an applicable side surface
___	___	___	___	___	___	(9) Unknown

FL FR BL BR RL RR

___ ___ ___ ___ ___ ___ (13 14 15 16 17 18)

Which Zones Were Contacted by a Crushing Force

14. 15. 16. 17. 18. 19.

Front L	Front R	Back L	Back R	Rear L	Rear R	Zone: Side: L=Left, R=Right
___	___	___	___	___	___	(1) Contacted
___	___	___	___	___	___	(2) Not contacted
___	___	___	___	___	___	(8) Not applicable, not a side surface
___	___	___	___	___	___	(9) Unknown if contacted

FL FR BL BR RL RR

___ ___ ___ ___ ___ ___ (22 23 24 25 26 27)

CRUSHING FORCE

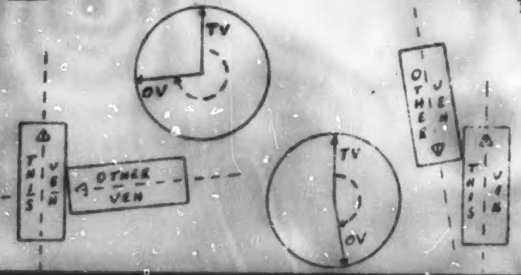
13. Angle of Intersecting Longitudinal Axes
(NOTE: Record the forward longitudinal axis of the other vehicle relative to the forward longitudinal axis of this vehicle at the moment of the initial collision between the two. The forward longitudinal axis of the other vehicle is to be measured clockwise from the forward longitudinal axis of this vehicle. This value is equal to the algebraic difference between the heading angles of the two vehicles.)

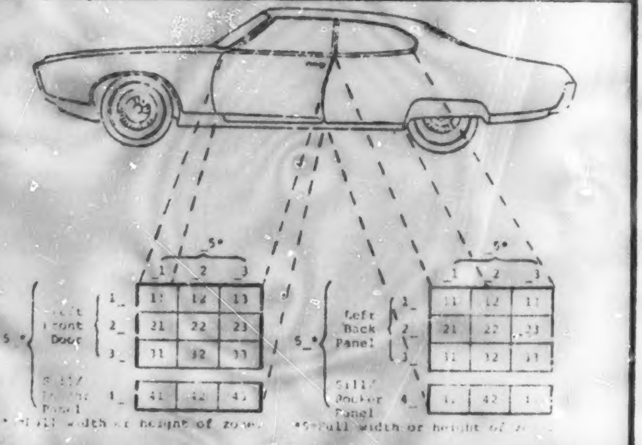
_______ degrees -- Code to nearest ten degrees.

___ (500) Vehicle-object contact

___ (999) Unknown

___ ___ ___ (19 20 21)





BEST DOCUMENT AVAILABLE

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Location of the Center of the Crushing Force in Each Side Zone Contacted

20. 21. 22. 23. 24. 25.

Front L	Front R	Back L	Back R	Rear L	Rear R	Zone: Side: L=Left, R=Right
___	___	___	___	___	___	(11-43) Center of crush [preceding page]*
___	___	___	___	___	___	(55) Crush distributed over all of zone [no crush center possible]
___	___	___	___	___	___	(98) Not applicable, no side surface zone, or not damaged
___	___	___	___	___	___	(99) Unknown center

* Select from the table on the preceding page the value most representative of the center of crush.

F L	F R	B L	B R	R L	R R
___ ___	___ ___	___ ___	___ ___	___ ___	___ ___
28 29	30 31	32 33	34 35	36 37	38 39

Depth of Crush to Each Zone

26. 27. 28. 29. 30. 31.

Front L	Front R	Back L	Back R	Rear L	Rear R	Zone: Side: L=Left, R=Right
___	___	___	___	___	___	(1) 0-2 inches
___	___	___	___	___	___	(2) >2-4 inches
___	___	___	___	___	___	(3) >4-6 inches
___	___	___	___	___	___	(4) >6-8 inches
___	___	___	___	___	___	(5) >8 inches
___	___	___	___	___	___	(8) Not applicable, no contact or no side surface
___	___	___	___	___	___	(9) Unknown

FL	FR	BL	BR	RL	RR
___	___	___	___	___	___
40	41	42	43	44	45

COMPONENT DAMAGE

In addition to the damage described above, were any structural/hardware components contacted or damaged? [NOTE: Contact and damage (direct and induced) must result from a direct application of a crushing force to the side surface between the A-pillar and the last pillar of the vehicle.]

Component Damage CODES

(1) Not damaged
(2) Direct damage, no separation*
(3) Direct damage, separation*
(4) Indirect damage, no separation*
(5) Indirect damage, separation*
(8) Not applicable [not equipped]
(9) Unknown
* Separation must be complete.

Structural Contact

32. 33. 34. 35. 36. 37. 38. 39.

Left Side A	Left Side B	Left Side C	Left Side D	Right Side A	Right Side B	Right Side C	Right Side D	Pillar:
___	___	___	___	___	___	___	___	(1) See Codes Below
___	___	___	___	___	___	___	___	(2)
___	___	___	___	___	___	___	___	(3)
___	___	___	___	___	___	___	___	(4)
___	___	___	___	___	___	___	___	(5)
___	___	___	___	___	___	___	___	(8)
___	___	___	___	___	___	___	___	(9)

LA	LB	LC	LD	RA	RB	RC	RD
___	___	___	___	___	___	___	___
46	47	48	49	50	51	52	53

Component Damage CODES

(1) Not damaged
(2) Direct damage, no separation*
(3) Direct damage, separation*
(4) Indirect damage, no separation*
(5) Indirect damage, separation*
(8) Not applicable [not equipped]
(9) Unknown
* Separation must be complete.

Left Door Hardware Contact

40. 41. 42. 43. 44. 45.

Latch/ Striker F	Latch/ Striker B	Hinges F	Hinges B	Sill F	Sill B	Zone:
___	___	___	___	___	___	(1) See Codes Above
___	___	___	___	___	___	(2)
___	___	___	___	___	___	(3)
___	___	___	___	___	___	(4)
___	___	___	___	___	___	(5)
___	___	___	___	___	___	(8)
___	___	___	___	___	___	(9)

LF	LB	HF	HB	SF	SB
___	___	___	___	___	___
54	55	56	57	58	59

Right Door Hardware Contact

46. 47. 48. 49. 50. 51.

Latch/ Striker F	Latch/ Striker B	Hinges F	Hinges B	Sill F	Sill B	Zone:
___	___	___	___	___	___	(1) See Codes Above or Adjacent
___	___	___	___	___	___	(2)
___	___	___	___	___	___	(3)
___	___	___	___	___	___	(4)
___	___	___	___	___	___	(5)
___	___	___	___	___	___	(8)
___	___	___	___	___	___	(9)

LF	LB	HF	HB	SF	SB
___	___	___	___	___	___
60	61	62	63	64	65

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INTRUSION CODES

<u>Column A: Intruding Component</u> Codes for intruded area(s) or component(s).

(01) Window frame
(02) A pillar--upper
(03) A pillar--lower
(04) B pillar--upper
(05) B pillar--lower
(06) C pillar--upper
(07) C pillar--lower
(08) D pillar--upper
(09) D pillar--lower
(10) Door panel or side panel--includes all hardware
(97) Other side component--[specify]

____

(98) Not applicable
(99) Unknown

<u>Column B: Occupant Space Intruded</u> A two digit code denotes occupant seat space. The first digit (left digit) denotes the seat row, with code values from 1-5. The second digit (right digit) denotes the position on the seat and (in some instances) the width of the seat.

Second Digit Codes:

Seat Type	Code Value
Individual seat (bucket)	(1) Left, (3) Right
Bench: full width 3 passenger	(1) Left, (2) Center, (3) Right
Bench: full width 4 passenger	(1) Left, (2) L. center, (6) R. center, (3) Right
Bench: partial width --left justified	(1) Left, (2) Center, (5) Right + aisle space
Bench: partial width --centered	(0) L.+space, (2) Center, (5) R.+space
Cargo area	(4) Entire vehicle width

Example: Passenger Car--5 passengers

```
        11        13     X   X
        21   22   23     X X X
```

Example: Van--12 passenger capacity

```
     11             13     X     X
     21   22   25          X X X
     31   32   35          X X X
     41   42   46   43     X X X X
```

<u>Column C: Associated Impact</u> Code relevant impact from the bottom of page 3 of the CSS VEHICLE FORM as follows:

(1) Most severe impact [V15]
(2) Secondary impact [V22]
(3) Other recorded impact [i.e., remaining CDC's from top of page 3]
(4) Other impact [not recorded on page 3]
(9) Unknown impact

<u>Column D: Number of Occupant Spaces in Seat Row</u>

(2) Two occupant spaces
(3) Three occupant spaces
(4) Four occupant spaces
(9) Unknown

<u>Column E: Amount of Intrusion</u>
(NOTE: Measured laterally in inches.)

-- Code actual value
(99) Unknown

<u>Column F: Occupant Space Reduction</u>

(1) No reduction
(2) Up to 25 percent
(3) 25 percent to 50 percent
(4) Greater than 50 percent
(9) Unknown reduction

<u>Column G: Contacted by Occupant Number:</u>

(00) No contact
-- Number of the occupant contacting the intrusion--use occupant number from CSS OCCUPANT FORM, page 1, variable 007
(97) Contacted, occupant unknown
(98) Not applicable [vehicle not occupied]
(99) Unknown if contacted

<u>Column H: Associated Injury #1.-CSS Row No</u>
<u>Column I: Associated Injury #2.-CSS Row No</u>
Code the injury (if injured) associated with the specific intrusion described on this line.

(0) No injury
(1-6) Injury row number as listed at the bottom of page 7 of the CSS OCCUPANT FORM
(7) Other [unlisted] injury
(8) Not applicable [vehicle not occupied]
(9) Unknown if injured or unknown injury number

INTRUSION

Intrusion Defined: Intrusion results whenever the internal boundary (surface) of the passenger compartment is moved inward due to direct damage resulting from the application of a crushing force as applied to the exterior surfaces of the vehicle.

Internal Side Surface: For the purposes of intrusion, the inner side surface extends from the inner door sill to the top of the upper window frame or top edge of the side glass. The roof rail is NOT included.

52. Did Intrusion of the Internal Side Surface Result from the Side Crushing Force

___(1) Yes
___(2) No] STOP! Complete external
___(9) Unknown] photographs only.

__ 66

53. Was There Catastrophic Intrusion Into the Passenger Compartment by the Side Surface.

___(1) Yes*
___(2) No -- continue!
___(9) Unknown*
* STOP! Complete both internal and external photographs.

__ 67

Zone(s) in which Intrusion(s) Occurred
(NOTE: Zones were specified in Q 7-12.)

54. 55. 56. 57. 58. 59.

Front L	Front R	Back L	Back R	Rear L	Rear R	Zone: Side: L=Left, R=Right
___	___	___	___	___	___	(1) Intrusion
___	___	___	___	___	___	(2) No intrusion
___	___	___	___	___	___	(8) Not applicable, no side zone
___	___	___	___	___	___	(9) Unknown

FL	FR	BL	BR	RL	RR
__ 68	__ 69	__ 70	__ 71	__ 72	__ 73

60. Number of Occupant Spaces in Vehicle

_____ -- Code actual value.
___(99) Unknown

__ __ 74 75

61. Total Number of Intrusions
(NOTE: This number can be greater than or equal to the number documented below.)

_____ -- Code actual value.
___(99) Unknown

__ __ 76 77

Code intrusions from left to right, front to rear starting with Occupant Space #11.

Col:	-A-	-B-	-C-	-D-	-E-	-F-	-G-	-H-	-I-
					Intrusion*		Occupant Contact and Injury		
	Intruding Component	Occupant Space Intruded	Associated Impact	Number of Occupant Spaces in Seat Row	Amount of Intrusion (inches)	Occupant Space Reduction	Contacted by Occupant Number:	Associated Injury #1. CSS Row No	Associated Injury #2. CSS Row No
1 2* (10)	62. __ __ (11 12)	63. __ __ (13 14)	64. __ (15)	65. __ (16)	66. __ __ (17 18)	67. __ (19)	68. __ __ (20 21)	69. __ (22)	70. __ (23)
2	71. __ __ (24 25)	72. __ __ (26 27)	73. __ (28)	74. __ (29)	75. __ __ (30 31)	76. __ (32)	77. __ __ (33 34)	78. __ (35)	79. __ (36)
3	80. __ __ (37 38)	81. __ __ (39 40)	82. __ (41)	83. __ (42)	84. __ __ (43 44)	85. __ (45)	86. __ __ (46 47)	87. __ (48)	88. __ (49)
4	89. __ __ (50 51)	90. __ __ (52 53)	91. __ (54)	92. __ (55)	93. __ __ (56 57)	94. __ (58)	95. __ __ (59 60)	96. __ (61)	97. __ (62)
5	98. __ __ (63 64)	99. __ __ (65 66)	100. __ (67)	101. __ (68)	102. __ __ (69 70)	103. __ (71)	104. __ __ (72 73)	105. __ (74)	106. __ (75)
6 3* (10)	107. __ __ (11 12)	108. __ __ (13 14)	109. __ (15)	110. __ (16)	111. __ __ (17 18)	112. __ (19)	113. __ __ (20 21)	114. __ (22)	115. __ (23)
7	116. __ __ (24 25)	117. __ __ (26 27)	118. __ (28)	119. __ (29)	120. __ __ (30 31)	121. __ (32)	122. __ __ (33 34)	123. __ (35)	124. __ (36)
8	125. __ __ (37 38)	126. __ __ (39 40)	127. __ (41)	128. __ (42)	129. __ __ (43 44)	130. __ (45)	131. __ __ (46 47)	132. __ (48)	133. __ (49)
9	134. __ __ (50 51)	135. __ __ (52 53)	136. __ (54)	137. __ (55)	138. __ __ (56 57)	139. __ (58)	140. __ __ (59 60)	141. __ (61)	142. __ (62)
10	143. __ __ (63 64)	144. __ __ (65 66)	145. __ (67)	146. __ (68)	147. __ __ (69 70)	148. __ (71)	149. __ __ (72 73)	150. __ (74)	151. __ (75)
11 4* (10)	152. __ __ (11 12)	153. __ __ (13 14)	154. __ (15)	155. __ (16)	156. __ __ (17 18)	157. __ (19)	158. __ __ (20 21)	159. __ (22)	160. __ (23)
12	161. __ __ (24 25)	162. __ __ (26 27)	163. __ (28)	164. __ (29)	165. __ __ (30 31)	166. __ (32)	167. __ __ (33 34)	168. __ (35)	169. __ (36)

*Duplicate columns 1-9, GO TO Card Number:

*Intrusion and reduction are measured laterally.

96

NATIONAL ACCIDENT SAMPLING SYSTEM SPECIAL STUDIES SUBSYSTEM

SIDE INTRUSION STUDY: VEHICLE LOG

COMPLETED BY TEAM

Duplicate columns 1 through 6 from the first page of this form.

Record Number 1 3 (7 8)

Card Number 1 (9)

Duplicate columns 11 and 12 from the first page of this form in col(s) 10 and 11.

Investigator's Initials ___ ___ ___ (12 13 14)

_ - Not in error, not to be updated, and not missing
1 - To be updated
2 - Error (not correctable)
3 - Error (correctable)
4 - Questionable
5 - Updated and corrected
6 - Sequencing error in CDC's or injury data
7 - Error incorrectly noted
8 - Data entry in error
9 - Unknown coded on field form

COMPLETED BY ZONE CENTER

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Response	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Variable	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
Response	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
Variable	59	60	61	62	63	64	65	66	**	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
Response	73	74	75	76	77	78	79	80	2 9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Variable	87	88	89	90	91	92	93	94	95	96	97	98	99	°0	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Response	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58
Variable	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	**	38	39	40	41	42	43
Response	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	3 9	10	11	12	13	14	15
Variable	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69			
Response	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			

** Duplicate columns 1 through 8 and go to card number:

° From this point on the number "1" should precede each of the subsequent variables (e.g., °0=100, 01=101, 02=102, ... 69=169).

STEERING COLUMN FORM

1. Primary Sampling Unit Number ___ ___ 1 2
2. Case Number ___ ___ ___ ___ 3 4 5 6
3. Special Study Number 0 3 7 8
4. Record Number 3 9
5. Vehicle Number ___ ___ 10 11

STEERING SYSTEM OPTIONAL EQUIPMENT

6. Speed Control
(NOTE: Factory installed--not a dealer installed unit.)
___(1) Equipped
___(2) Not equipped
___(9) Unknown
12

7. Tilt Column Feature
___(1) Equipped
___(2) Not equipped
___(9) Unknown
13

8. Telescoping Column Feature
___(1) Equipped
___(2) Not equipped
___(9) Unknown
14

STEERING WHEEL: DEVICE

9. Wheel Configuration (Number of Spokes and Arrangement)

_______ -- Code actual value from those listed in the Table of Compiled Steering Components or from the reverse side.
___(95) Undetermined--no reference data
___(97) Other: Sketch configuration in the space provided on the reverse side
___(99) Unknown spokes and arrangement
15 16

10. Wheel Profile
___(1) Deep dish
___(2) Shallow dish
___(3) Flat
___(4) Other profile:
____
___(5) Undetermined--no reference data
___(9) Unknown profile
17

STEERING COLUMN PERFORMANCE ASSESSMENT

When To Use This Form: Complete this form whenever this vehicle was a towaway and the initial crash event involved a frontal or side collision [i.e., exclude initial rear impacts (clock directions 04-08) and exclude rollovers].

Photographic Instructions: Take at least two photographs of the steering column wheel, Energy Absorbing (EA) Device, etc., so as to best depict the location and magnitude of the damage. Photograph the mounting and foundation also, if damaged.

Steering System Defined: That portion of the steering assembly which is located within the passenger compartment consisting of the following components/subsystems.

1. The column, extending from the toe pan to its termination in the steering wheel hub
2. Associated mounting brackets, hardware, and foundation
3. Associated energy absorbing devices
4. The steering wheel

11. Wheel Energy Absorbing [EA] Type Code
(NOTE: While most wheels are designed to absorb some energy, certain wheels are specifically EA and replace the column EA capability.)
___(01) Non-EA wheel -- Code "not applicable" for Questions 12-14.
___(02) EA wheel type unspecified
_______ -- Code actual value. (See Table of Compiled Steering Components for code applicable to your specific make, model, and model year.)
___(90) Other:
____
___(95) Undetermined--no reference data -- Code "unknown" for Questions 12 and 13. Complete Question 14.
___(99) Unknown if EA wheel -- Code "unknown" for Questions 12-14.
18 19

STEERING WHEEL: DAMAGE

Wheel EA Compression Calculation

12. Wheel Original Dimension
_______ tenths of inches -- Code actual value from Table of Compiled Steering Components.
___(998) Not applicable
___(999) Unknown
20 21 22

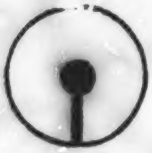
13. Wheel Compressed Dimension
(NOTE: See reference manual for how-to-measure. Example on reverse side.)
_______ tenths of inches -- Code actual measured value.
___(998) Not applicable
___(999) Unknown
23 24 25

NASS STEERING COLUMN REFERENCE DIAGRAMS - PART 1

WHEEL CONFIGURATIONS

1 spoke | **2 spokes** | **3 spokes** | **4 spokes**

11 =



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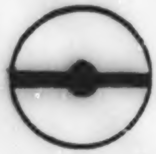

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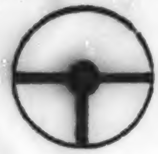

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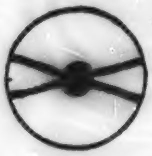

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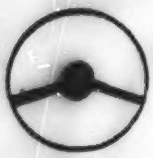

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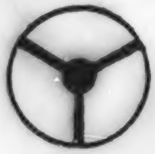
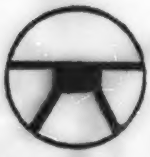
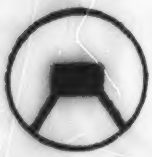


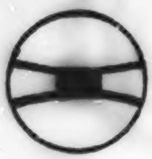
42=



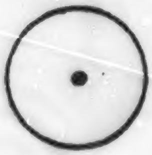
23 =



43 =

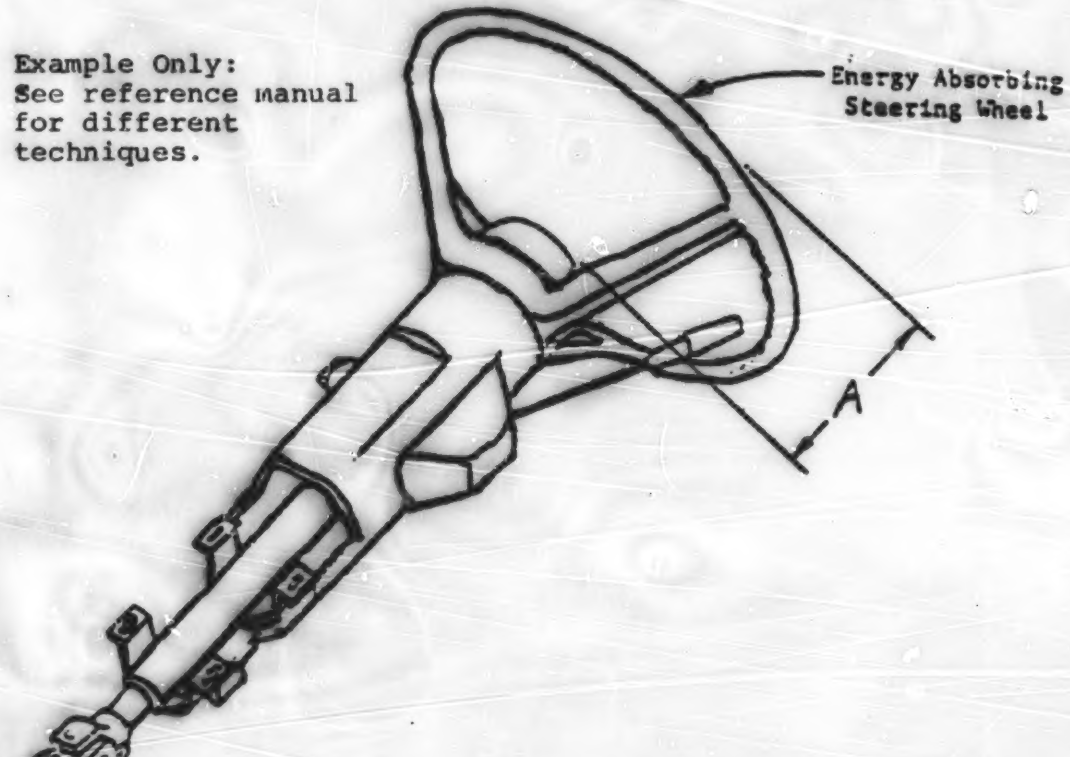


97 =
Other



ENERGY ABSORBING STEERING WHEEL MEASUREMENT

Example Only:
See reference manual
for different
techniques.


Energy Absorbing
Steering Wheel
A

14. Wheel Compression Value
(NOTE: Result is rounded to the nearest inch.)

______ inches -- Subtract the Question 13 value from the Question 12 value and record the difference.
___(00) No movement, compression, or collapse
Observed Value Code (cannot be measured):
___(80) Apparent movement, value undetermined
Estimated movement:
___(81) less than 1 inch
___(82) between 1 and 2 inches
___(84) between 2 and 4 inches
___(86) between 4 and 6 inches
___(88) between 6 and 8 inches
___(90) greater than 8 inches
Other Codes:
___(98) Not applicable, not measurable
___(99) Unknown

26 27

15. Rim Distortion

___(1) No distortion
___(2) Minor bending--less than 1 inch
___(3) Severe bending--greater than 1 inch
___(4) Broken (i.e., separated)
___(9) Unknown distortion

28

16. Spoke Distortion

___(1) No distortion
___(2) Minor bending--less than 1 inch
___(3) Severe bending--greater than 1 inch
___(4) Broken (i.e., separated)
___(9) Unknown distortion

29

STEERING COLUMN: DEVICE

17. Energy Absorbing Device Type

___(01) Non-EA column -- Code "not applicable for Questions 19-21.
___(02) EA column type unspecified
______ -- Code actual value. (See Table of Compiled Steering Components for code applicable to your specific make, model, and model year. Also, see those listed on reverse side.)
___(90) Other [sketch on reverse side]:

___(95) Undetermined--no reference data -- Code "unknown" for Questions 19 and 20. Complete Question 21.
___(99) Unknown if EA column -- Code "unknown" for Questions 19-21.

30 31

18. Mounting Method

___(0) Undetermined--no reference data
Rigid to Instrument Panel:
___(1) Rigid at toe pan/lower firewall
___(2) Lower bracket
___(3) No lower attachment
Shear Module at Instrument Panel:
___(4) Rigid at toe pan/lower firewall
___(5) Lower bracket
___(6) No lower attachment

___(7) Bracket
___(8) Other:

___(9) Unknown method

32

STEERING COLUMN: COMPRESSION

Column EA Device Compression Calculation

19. Device Original Dimension

______ tenths of inches -- Code actual value from Table of Compiled Steering Components.
___(998) Not applicable
___(999) Unknown

33 34 35

20. Device Compressed Dimension

______ tenths of inches -- Code actual measured value.
___(998) Not applicable
___(999) Unknown

36 37 38

21. Device Compression Value
(NOTE: Result is rounded to the nearest inch.)

______ inches -- Subtract the Question 20 value from the Question 19 value and record the difference.
___(00) No movement, compression, or collapse
Observed Value Code (cannot be measured):
___(80) Apparent movement. value undetermined
Estimated movement:
___(81) less than 1 inch
___(82) between 1 and 2 inches
___(84) between 2 and 4 inches
___(86) between 4 and 6 inches
___(88) between 6 and 8 inches
___(90) greater than 8 inches
Other Codes:
___(98) Not applicable, not measurable
___(99) Unknown

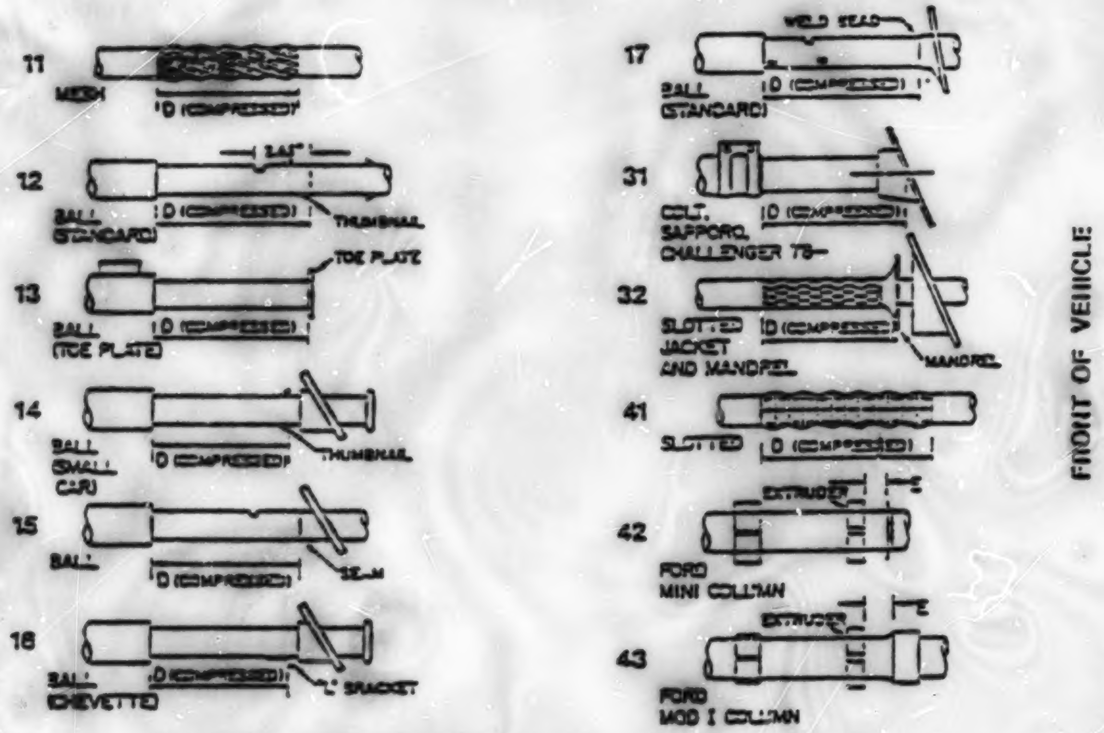
39 40

22. Shear Module: Type of Movement

___(1) No movement
___(2) Displacement only
___(3) Displacement and separation
___(4) Not designed to indicate movement
___(8) Not applicable or no shear module
___(9) Unknown movement

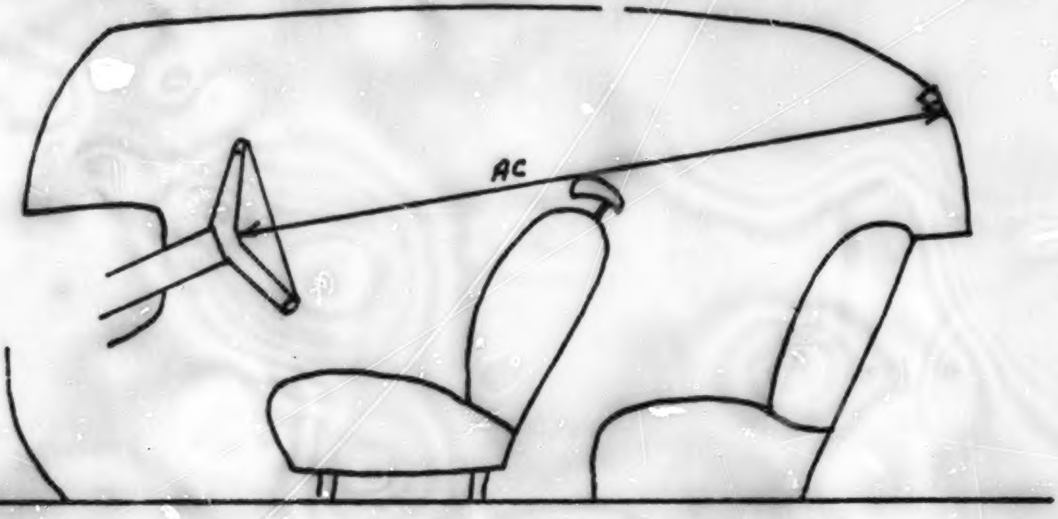
41

STEERING COLUMN ENERGY ABSORBING DEVICES


11
MESH
D (COMPRESSED)
12
2.45"
BALL
(STANDARD)
D (COMPRESSED)
THUMBNAIL
13
TOE PLATE
BALL
(TOE PLATE)
D (COMPRESSED)
14
BALL
(SMALL
CAR)
D (COMPRESSED)
THUMBNAIL
15
BALL
D (COMPRESSED)
SEAM
16
BALL
(CHEVETTE)
D (COMPRESSED)
"L" BRACKET
17
WELD BEAD
BALL
(STANDARD)
D (COMPRESSED)
31
COLT,
SAPPORO,
CHALLENGER 78—
D (COMPRESSED)
32
SLOTTED
JACKET
AND MANDREL
D (COMPRESSED)
MANDREL
41
SLOTTED
D (COMPRESSED)
42
EXTRUDER
FORD
MINI COLUMN
43
EXTRUDER
FORD
MOD I COLUMN
FRONT OF VEHICLE

AC DIMENSION REFERENCE POINT AND MEASUREMENT TECHNIQUE

Measurement to bottom edge of upper backlight trim at glass.



AC Reference Point Codes:
(1) Backlight glass header

AC Measurement Notes: straight line measurement if possible.
(1) If adjustable headrest, measurement is with headrest down.
(2) If high back seat, measurement is over top of seat back.
(3) Vehicles with no back seat, measurement is still taken to window trim.

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23. Shear Module: Measured Movement
(NOTE: Result is rounded to the nearest inch.)

_______ inches -- Code actual measured movement. See coding manual for measurement technique(s).
___(00) No movement, compression, or collapse
Observed Value Code (cannot be measured):
___(80) Apparent movement, value undetermined
Estimated movement:
___(81) less than 1 inch
___(82) between 1 and 2 inches
___(84) between 2 and 4 inches
___(86) between 4 and 6 inches
___(88) between 6 and 8 inches
___(90) greater than 8 inches
Other Codes:
___(98) Not applicable, not measurable
___(99) Unknown

42 43

COLUMN DISPLACEMENT

AC Dimension Axial Movement Calculation

24. AC Original Dimension

_______ inches -- Code actual value form Table of Compiled Steering Components.
___(995) Undetermined--no reference data -- Code "not applicable" for Question 25. Complete Question 27.
___(998) Not applicable--reference data available -- Code "not applicable" for Questions 25 and 27.
___(999) Unknown, not measurable -- Code "unknown" for Questions 25 and 27.

44 45 46

25. AC Measured Dimension
(NOTE: See diagram and related notes on reverse side of preceding page.)

_______ inches -- Code actual measured value.
___(998) Not applicable
___(999) Unknown

47 48 49

26. Direction of Axial Movement

___(1) No displacement
___(2) Compression (measured dimension greater than original)
___(3) Intrusion (measured dimension less than original)
___(4) Displacement, unknown direction
___(9) Unknown (NOTE: Includes loose column through mounting separation.)

50

27. AC Axial Movement
(NOTE: Result is rounded to the nearest inch.)

_______ inches -- Subtract the Question 25 value from the Question 24 value and record the difference.
___(000) No movement, compression, or collapse
Observed Value Code (cannot be measured):
___(980) Apparent movement, value undetermined
Estimated movement:
___(981) less than 1 inch
___(982) between 1 and 2 inches
___(984) between 2 and 4 inches
___(986) between 4 and 6 inches
___(988) between 6 and 8 inches
___(990) greater than 8 inches
Other Codes:
___(998) Not applicable, not measurable
___(999) Unknown

51 52 53

28. Lateral (↔) Column Displacement: Direction
(NOTE: Determined at the steering wheel end.)
___(1) No displacement
___(2) Right
___(3) Left
___(4) Displacement, unknown direction
___(9) Unknown (NOTE: Includes loose column through mounting separation.)

54

29. Lateral (↔) Column Displacement: Magnitude
(NOTE: See previous note.)
___(1) No apparent displacement
___(2) Minor, ≤ 2 inches] Eyeball
___(3) Major, ≥ 2 inches] Guestimate
___(9) Unknown

55

30. Vertical (↕) Column Displacement: Direction
(NOTE: See note on Question 28.)
___(1) No displacement
___(2) Up
___(3) Down
___(4) Displacement, unknown direction
___(9) Unknown (NOTE: Includes loose column through mounting separation.)

56

31. Vertical (↕) Column Displacement: Magnitude
(NOTE: See note on Question 28.)
___(1) No apparent displacement
___(2) Minor, ≤ 2 inches] Eyeball
___(3) Major, ≥ 2 inches] Guestimate
___(9) Unknown

57

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32. Column Mounting Damage
(NOTE: Does not include shear capsule separation, unless by other than normal shear capsule movement.)
___(1) No damage
___(2) Upper mounting assembly *damaged or distorted** (including bracket)
___(3) Lower mounting assembly *damaged or distorted**
___(4) Upper and lower mounting assembly *damaged or distorted**
___(5) Bracket mounting assembly *damaged or distorted**
___(6) Other mounting damage:
____
___(9) Unknown damage

58

* Damage results from twisting, tearing, bending, distorting, etc. to the mounting assembly.

FOUNDATION AND SURROUNDING STRUCTURE DAMAGE

33. Toe Pan Area Damage Near Column

___(01) None
___(02) Displaced or buckled rearward, or into occupant space
___(03) Displaced or buckled forward, or away from occupant space
___(08) Combination of above [specify]:
____
___(98) Not applicable
___(99) Unknown if damaged

59 60

34. Instrument Panel Vertical Rotation Near Column

___(01) None
___(06) Rotated or displaced upwards
___(07) Rotated or displaced downwards
___(08) Combination of above [specify]:
____
___(98) Not applicable
___(99) Unknown if damaged

61 62

35. Instrument Panel Buckle Near Column

___(01) None
___(02) Displaced or buckled rearward, or into occupant space
___(03) Displaced or buckled forward, or away from occupant space
___(04) Displaced left
___(05) Displaced right
___(08) Combination of above [specify]:
____
___(98) Not applicable
___(99) Unknown if damaged

63 64

36. Bracket Mount Surface or Device Damaged
(NOTE: If bracket mount used.)
___(01) None
___(02) Displaced or buckled rearward, or into occupant space
___(03) Displaced or buckled forward, or away from occupant space
___(04) Displaced left
___(05) Displaced right
___(06) Rotated or displaced upwards
___(07) Rotated or displaced downwards
___(08) Combination of above [specify]:
____
___(98) Not applicable
___(99) Unknown if damaged

65 66

STEERING COLUMN STUDY: VEHICLE LOG

COMPLETED BY TEAM

Duplicate columns 1 through 6 from the first page of this form.

Record Number 1 2 (7, 8)

Card Number 1 (9)

Duplicate columns 10 and 11 from the first page of this form.

Investigator's Initials ___ ___ ___ (12, 13, 14)

- _ - Not in error, not to be updated, and not missing
- 1 - To be updated
- 2 - Error (not correctable)
- 3 - Error (correctable)
- 4 - Questionable
- 5 - Updated and corrected
- 6 - Sequencing error in CDC's or injury data
- 7 - Error incorrectly noted
- 8 - Data entry in error
- 9 - Unknown coded on field form

COMPLETED BY ZONE CENTER

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Response	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Variable	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Response	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

NATIONAL ACCIDENT SAMPLING SYSTEM — SPECIAL STUDIES SUBSYSTEM

ROOF INTRUSION FORM

1. Primary Sampling Unit Number __ __ (1 2)

2. Case Number __ __ __ __ (3 4 5 6)

3. Special Study Number 0 5 (7 8)

4. Record Number 3 (9)

5. Card Number 1 (10)

6. Vehicle Number __ __ (11 12)

ROOF DESCRIPTION

Upper Roof Pillars

7. 8. 9. 10.

Pillars A	B	C	D	
___	___	___	___	(1) Upper pillar present
___	___	___	___	(2) No upper pillar
___	___	___	___	(8) Not applicable
___	___	___	___	(9) Unknown

A -- (13) B -- (14) C -- (15) D -- (16)

11. Total Number of Roof Areas
(NOTE: See reverse side for roof area designations.)
___(2) Two
___(4) Four
___(6) Six
___(9) Unknown
__ (17)

ROOF ATTACHMENTS

12. Roof Attachments
(NOTE: An asterisk [*] below indicates attachment directly to roof.)
___(1) Lights* (clearance, spot, warning)
___(2) Horn or siren*
___(3) Car top carrier (portable, ski rack, light bar, etc.)
___(4) Roof rack* (permanent--OEM)
___(5) Wind deflector
___(6) Other: ______________________
___(7) Combination of above--[specify] ______________________
___(8) Not applicable (no attachments)
___(9) Unknown
__ (18)

ROOF CRASH PERFORMANCE ASSESSMENT

When To Use This Form: This form is to be completed only if the roof has been impacted and has sustained direct damage.

Photographic Instructions: Photograph each roof impacted area from two different perspectives to best portray location and magnitude of roof damage.

13. Roof Material
___(1) Steel
___(2) Fiberglass
___(3) Fabric
___(4) Other: ______________________
___(5) Combination of above--[specify] ______________________
___(8) Not applicable (no roof)
___(9) Unknown
__ (19)

14. Roof Options
___(1) None
___(2) Sun roof, skylight
___(3) Convertible (top up)
___(4) T-roof
___(5) Raised roof, pop-up roof (camper)
___(6) Other: ______________________
___(8) Not applicable (no roof)
___(9) Unknown
__ (20)

15. Roll Bar Equipped
___(1) None
___(2) External
___(3) Internal
___(4) Roll cage
___(9) Unknown
__ (21)

ROOF DEFORMATION AND CRUSH DIRECTION--EXTERIOR

Left Column	Roof Area Damaged	Inward Crush ≥4 Inches	Dominant* Crush Direction
1-One			
2-Two			
3-Three			
4-Four	16. __ (22)	17. __ (23)	18. __ (24)
5-Five			
6-Six			
Center Column	19. __ (25)	20. __ (26)	21. __ (27)
1-Yes			
2-No	22. __ (28)	23. __ (29)	24. __ (30)
8-Not applicable			
9-Unknown			
Right Column	25. __ (31)	26. __ (32)	27. __ (33)
1-Vertical			
2-Longitudinal	28. __ (34)	29. __ (35)	30. __ (36)
3-Lateral			
4-Combination			
9-Unknown	31. __ (37)	32. __ (38)	33. __ (39)

* See figures & diagrams on reverse side.

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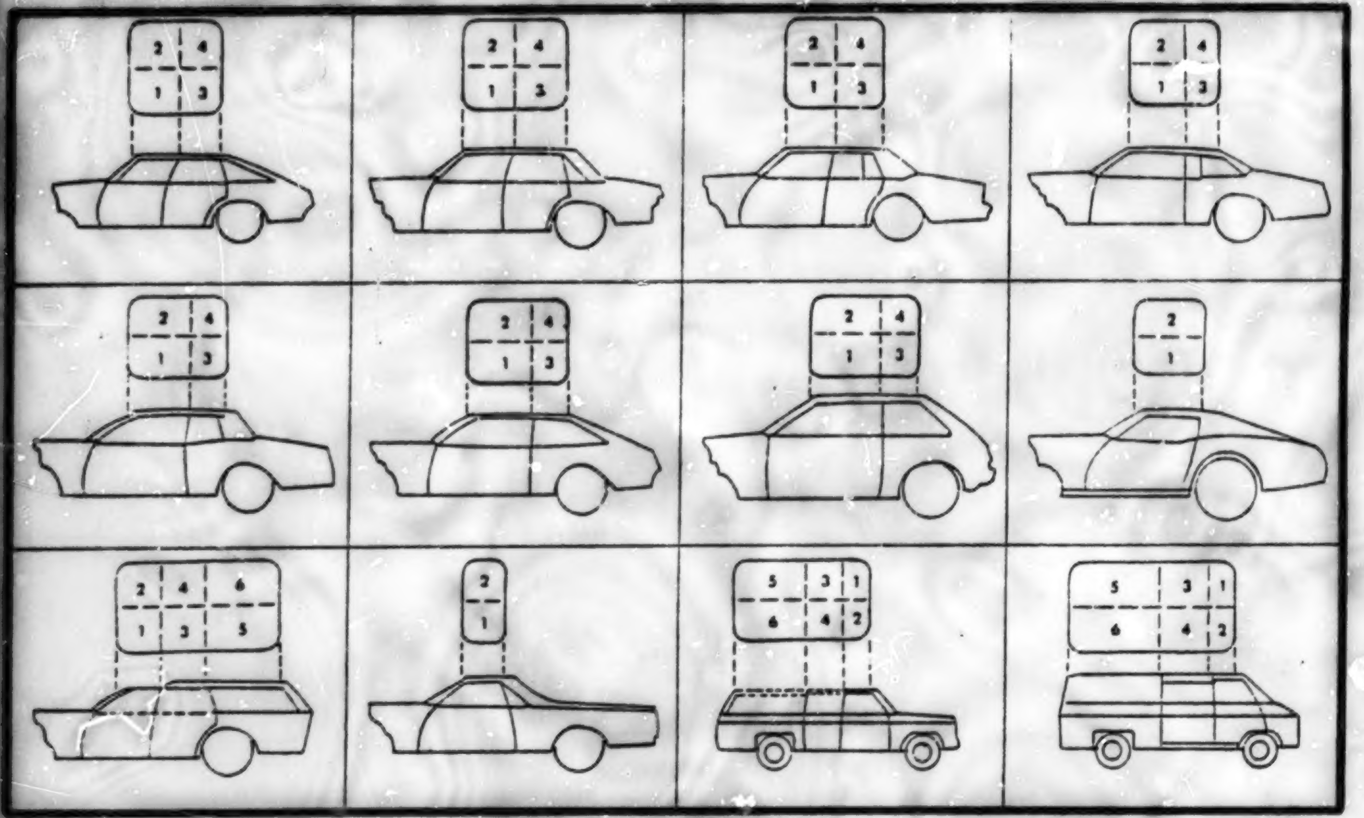
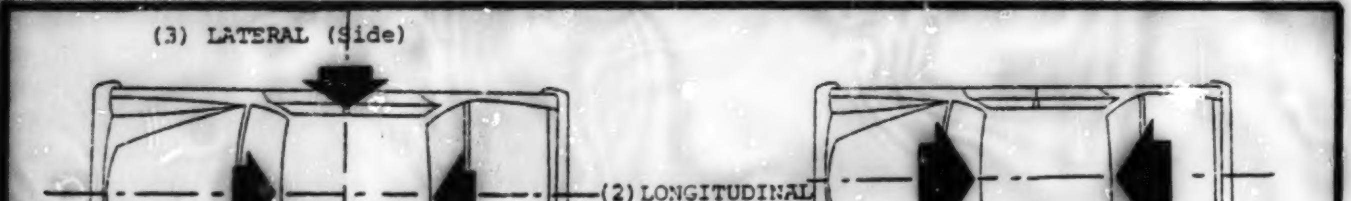
ROOF AREA DESIGNATIONS


2 4 1 3
2 4 1 3
2 4 1 3
2 4 1 3
2 4 1 3
2 4 1 3
2 4 1 3
2 1
2 4 6 1 3 5
2 1
5 3 1 6 4 2
5 3 1 6 4 2

DOMINANT CRUSH DIRECTION


(3) LATERAL (Side)
(2) LONGITUDINAL (front,rear)
(1) VERTICAL (top)
(3) LATERAL (side)
(9) UNKNOWN
(4) COMBINDED
V
LO
LA

ROOF AREA INTRUSION--INTERIOR

34. Did Intrusion of the Interior Roof Surface Result from the Roof Deformation

___(1) Yes - continue!
___(2) No } → STOP!
___(9) Unknown }

__ 40

35. Total Number of Intrusions (NOTE: This number can be greater than or equal to the number documented below.)

___ -- Code actual number.
___(99) Unknown

__ __ 41 42

COLUMN	-A- Intruding Components	-B- Roof Area Intruded	-C- Occupant Space Intruded	-D- Associated Impact	-E- Intrusion Depth	-F- Occupant Space Reduction	-G- Contacted by Occupant Number:	-H- Associated Injury-CSS Row Number
	36. __ __ 43 44	37. __ 45	38. __ __ 46 47	39. __ 48	40. __ 49	41. __ 50	42. __ __ 51 52	43. __ 53
	44. __ __ 54 55	45. __ 56	46. __ __ 57 58	47. __ 59	48. __ 60	49. __ 61	50. __ __ 62 63	51. __ 64
Duplicate columns 1 through 9, Go to:	52. __ __ 65 66	53. __ 67	54. __ __ 68 69	55. __ 70	56. __ 71	57. __ 72	58. __ __ 73 74	59. __ 75
Card Number 2 10	60. __ __ 11 12	61. __ 13	62. __ __ 14 15	63. __ 16	64. __ 17	65. __ 18	66. __ __ 19 20	67. __ 21
	68. __ __ 22 23	69. __ 24	70. __ __ 25 26	71. __ 27	72. __ 28	73. __ 29	74. __ __ 30 31	75. __ 32
	76 __ __ 33 34	77. __ 35	78. __ __ 36 37	79. __ 38	80. __ 39	81. __ 40	82. __ __ 41 42	83. __ 43

Column A: Intruded Components Codes for intruded area(s) or component(s).

(01) Roof and/or headliner
(02) Windshield header
(03) Door window frame
(04) Roof side rails
(05) Backlight header
(06) Upper A-pillar
(07) Upper B-pillar
(08) Upper C-pillar
(09) Upper D-pillar
(10) Upper side panel (cargo vans, etc.)
(11) Upper back panel (back door surface)
(12) Other component--[specify]
____

(98) Not applicable
(99) Unknown

Column B: Roof Area Intruded Refer to roof area designations on reverse side of preceding page.

Column C: Occupant Space Intruded A two digit code denotes occupant seat space. The first digit (left digit) denotes the seat row, with code values from 1-5. The second digit (right digit) denotes the position on the seat and (in some instances) the width of the seat.

Example: Passenger Car--5 passengers

```
11      13     X   X
21  22  23     X X X
```

Column D: Associated Impact Code relevant impact from the bottom of page 3 of the CSS VEHICLE FORM as follows:

(1) Most severe impact [V15]
(2) Secondary impact [V22]
(3) Other recorded impact [i.e., remaining CDC's from top of page 3]
(4) Other impact [not recorded on page 3]
(9) Unknown impact

Column E: Intrusion Depth

(1) Inward crush less than 4 inches
(4) Inward crush greater than or equal to 4 inches
(9) Unknown

Second Digit Codes:

Seat Type	Code Value
Individual seat (bucket)	(1) Left, (3) Right
Bench: full width 3 passenger	(1) Left, (2) Center, (3) Right
Bench: full width 4 passenger	(1) Left, (2) L. center, (6) R. center, (3) Right
Bench: partial width --left justified	(1) Left, (2) Center, (5) Right + aisle space
Bench: partial width --centered	(0) L.+space, (2) Center, (5) R.+space
Cargo area	(4) Entire vehicle width

Example: Van--12 passenger capacity

```
11              13     X     X
21  22  25             X X X
31  32  35             X X X
41  42  46      43     X X X X
```

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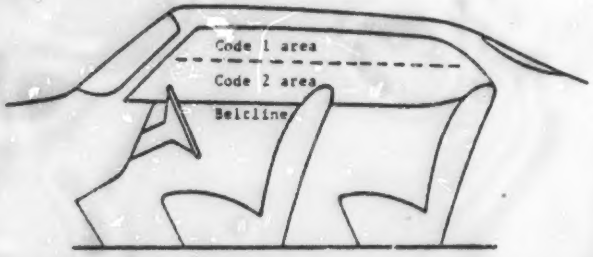
ROOF AREA INTRUSION--INTERIOR - CONTINUED

Column F: Occupant Space Reduction Judge the inward intrusion of the interior roof surface with respect to the vehicle's beltline and seatbacks (see diagram)
(1) Less than one-half the distance to the beltline
(2) Greater than or equal to one-half the distance to the beltline
(3) Contact to a level at the beltline or deeper
(8) Not applicable
(9) Unknown

(NOTE: *If in contact with seatback and greater than one-half the distance to the beltline, code 2.*)



Column G: Contacted by Occupant Number:

(00) No contact
-- Number of the occupant contacting the intrusion--use occupant number from CSS OCCUPANT FORM, page 1, variable 007
(97) Contacted, occupant unknown
(98) Not applicable [vehicle not occupied]
(99) Unknown if contacted

Column H: Associated Injury-CSS Row Number
Code the injury (if injured) associated with the specific intrusion described on this line.
(0) No injury
(1-6) Injury row number as listed at the bottom of page 7 of the CSS OCCUPANT FORM
(7) Other [unlisted] injury
(8) Not applicable [vehicle not occupied]
(9) Unknown if injured or unknown injury number

NATIONAL ACCIDENT SAMPLING SYSTEM

SPECIAL STUDIES SUBSYSTEM

ROOF INTRUSION STUDY: VEHICLE LOG

COMPLETED BY TEAM

Duplicate columns 1 through 6 from the first page of this form.

Record Number 1 4 (7 8)

Card Number 1 (9)

Duplicate columns 11 and 12 from the first page of this form in col(s) 10 and 11.

Investigator's Initials ___ ___ ___ (12 13 14)

_ - Not in error, not to be updated, and not missing
1 - To be updated
2 - Error (not correctable)
3 - Error (correctable)
4 - Questionable
5 - Updated and corrected
6 - Sequencing error in CDC's or injury data
7 - Error incorrectly noted
8 - Data entry in error
9 - Unknown coded on field form

COMPLETED BY ZONE CENTER

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Response	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Variable	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Response	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Variable	57	58	59	60	61	62	63	64	65	66	**	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
Response	71	72	73	74	75	76	77	78	79	80	2 9	10	11	12	13	14	15	16	17	19	19	20	21	22	23	24	25	26

** Duplicate columns 1 through 8 and go to card number:

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NATIONAL ACCIDENT SAMPLING SYSTEM SPECIAL STUDIES SUBSYSTEM

TRUCK UNDERRIDE FORM
VEHICLE SUPPLEMENT

1. Primary Sampling Unit Number ___ ___ (1 2)

2. Case Number ___ ___ ___ ___ (3 4 5 6)

3. Special Study Number 0 2 (7 8)

4. Record Number 3 (9)

5. Vehicle Number (Heavy Truck)
(NOTE: A heavy truck is one that was coded in variable V13 on the VEHICLE FORM as a 14-22, 29, 54, or 58.) ___ ___ (10 11)

6. Vehicle Number (Car, Pickup, or Van)
(NOTE: V13 must be less than 14 or equal to 55, 56, or 58 where a CDC can be completed.) ___ ___ (12 13)

7. Engine Location (Car, Pickup, or Van)

___(1) Front engine - regular
___(2) Front engine - transverse
___(3) Rear engine - regular
___(4) Rear engine - transverse
___(8) Other: ______________________________
___(9) Unknown
___ (14)

8. Number of Cylinders (Car, Pickup, or Van)

___(1) Rotary engine
___(2) Other engine type (e.g. electric): ______________________________
___(4) Four cylinders
___(5) Five cylinders
___(6) Six cylinders
___(8) Eight cylinders or more
___(9) Unknown
___ (15)

9. Minimum Height of Direct Contact
(NOTE: Measured on Car, Pickup, or Van.)

___ inches -- Code actual value.
___(99) Unknown
___ ___ (16 17)

10. Degree of Direct Damage for Frontal Damage Only (Car, Pickup, or Van)
(NOTE: Treat rear engine vehicles as front engine type for this variable.)

___(1) None
___(2) Leading edge of hood or less
___(3) Radiator fan or equivalent location
___(4) Front of engine
___(5) Half of engine
___(6) Greater than half of engine
___(7) Penetration of passenger compartment
___(8) Not applicable (front not directly damaged)
___(9) Unknown
___ (18)

11. Vehicle In Motion At Impact (Car, Pickup, or Van)

___(1) Yes
___(2) No
___(9) Unknown
___ (19)

12. Truck Type: FHWA Classification

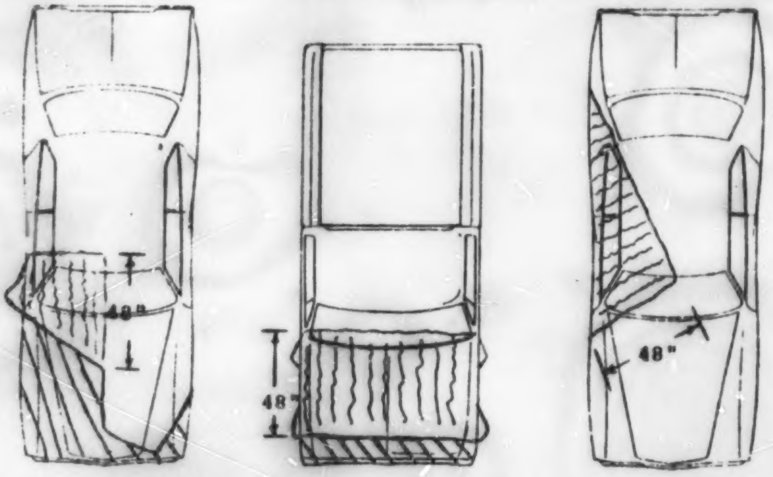
___(21) FLT-Platform, flat, or stake
___(22) LOB-Low-bed trailer
___(23) RAK-Rack
___(24) STK-Livestock rack
___(25) RIG-Riggers or oil field
___(26) LUM-Lumber
___(27) LOG-Log, or pipe
___(28) CNP-Canopy
___(31) EXP-Express
___(32) BOX-Open top box or van
___(33) GRN-Grain
___(34) DMP-Dump
___(35) HOP-Hopper
___(41) VAN-Van
___(42) REF-Insulated van
___(43) MOV-Furniture or moving van
___(51) TNK-Tank
___(52) OIL-Petroleum tank
___(53) DST-Bituminous material distributor
___(54) BOT-Bottler
___(61) DEL-Multistop or standup delivery
___(62) AUT-Automobile transporter
___(63) ARM-Armored car (not military)
___(64) BTC-Boat carrier
___(71) MIX-Concrete mixer or agitator
___(72) WRK-Wrecker
___(73) UTL-Utilities
___(74) GAR-Garbage and refuse
___(75) CON-Container
___(76) EQP-Equipment
___(77) CHS-Bare chassis
___(78) SHP-Shop
___(79) DWL-Dwelling body
___(88) NTR-Truck-tractor without semi-trailer or trailer
___(89) ELG-Empty log truck carrying pole trailer
___(97) OTHER: ______________________________
___(99) UNKNOWN
___ ___ (20 21)

4/79

CAR, PICKUP, OR VAN: UNDERRIDE/OVERRIDE WORKSHEET

Select the appropriate diagram (car, pickup, or van) to depict for recording purposes the one measurement most representative of the amount this vehicle underrode the side or rear of the heavy truck. This measurement is based on: (1) the underride/override (overlap) which resulted from the contact, and (2) the section of the overlap pattern which represents the maximum amount of underride. This measurement is affected by the residual crush; therefore, while one point of the measurement represents the final point of direct overlap, the other point used to make the measurement may not reside on the original perimeter since it may have been crushed inwards due to the impact. The line of the measurement will follow the line(s) of crush, striations, etc. resulting from the overlapping action. Record zero ("0") if there is no underride damage resulting from contact with the heavy truck.

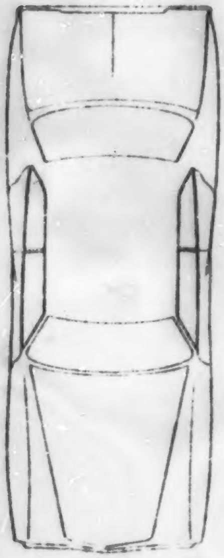
EXAMPLES



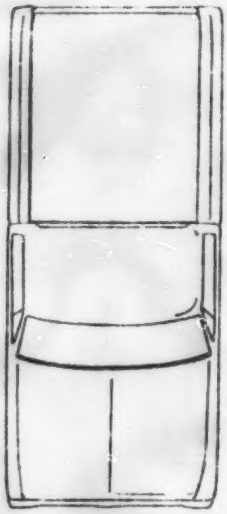
Underride Damage Measurement:
(NOTE: Record "0" if none.)

48 inches

Car



Pickup



Van

Underride Damage Measurement:
(NOTE: Record "0" if none.)

______ inches

13. Truck Primary Payload Commodity Classification

____
(commodity)

___(01) No payload (empty)
___(02) Liquid bulk
___(03) Gaseous bulk
___(04) Dry bulk
___(05) Ores, gravels, minerals, or earth (sand, clay, etc.)
___(06) Logs, lumber, solid concrete, steel or other metal products
___(07) Grains, fruits, or vegetables
___(08) Livestock
___(09) Passengers (i.e., workers)
___(10) Empty containers (barrels, boxes, or crates)
___(11) Containerized substances (barrels, boxes, crates that are full)
___(12) Package foods, drugs, or beverages
___(13) Textile products
___(14) Bundled, stacked, or palletized materials
___(15) Furniture, fixtures, or appliances
___(16) Equipment (farming, mixing, construction, automobiles, etc.)
___(17) Machinery (office, maintenance, shop, etc.)
___(18) Homes (mobile or conventional), large boats, or other inordinate loads
___(19) Other: ______________________________
___(99) Unknown

22 23

14. Cargo Area or Trailer Payload Weight Distribution
(NOTE: This is for the contacted unit only.)

___(1) Center of gravity toward rear
___(2) Center of gravity toward middle
___(3) Center of gravity toward front
___(4) No payload (empty)
___(9) Unknown

24

15. Payload Shift

___(1) Yes
___(2) No
___(3) No payload (empty)
___(9) Unknown

25

16. Truck Power Unit Type

___(1) Straight truck
___(2) Tractor
___(9) Unknown

26

17. Total Number of Trailers

_____ -- Code actual value.
___(8) Not applicable, striaght truck only
___(9) Unknown

27

Trailer Type

18. 19. 20.

1st 2nd 3rd
--- --- ---
___ ___ ___ (1) Semi-trailer
___ ___ ___ (2) Full trailer
___ ___ ___ (8) Not applicable
___ ___ ___ (9) Unknown

1 2 3
-- -- --
28 29 30

Number of Axles Per Unit

21. 22. 23. 24.

Power Unit / Trailer 1st 2nd 3rd
----- --- --- ---
___ ___ ___ ___ (1) One
___ ___ ___ ___ (2) Two
___ ___ ___ ___ (3) Three
___ ___ ___ ___ (4) Four
___ ___ ___ ___ (5) Five
___ ___ ___ ___ (6) Six
___ ___ ___ ___ (7) Seven or more
___ ___ ___ ___ (8) Not applicable
___ ___ ___ ___ (9) Unknown

P 1 2 3
-- -- -- --
31 32 33 34

25. Truck Unit Contacted

___(1) Power unit
___(2) First trailer
___(3) Second trailer
___(4) Third trailer
___(9) Unknown

35

26. Contacted Unit [Variable 25.] In Motion At Impact

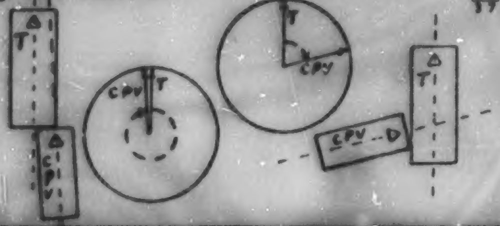
___(1) Yes
___(2) No
___(9) Unknown

36

27. Angle of Intersecting Longitudinal Axes
(NOTE: Record the forward longitudinal axis of the car, pickup, or van relative to the forward longitudinal axis of the truck at the moment of the initial collision between the two. The forward longitudinal axis of the car, pickup, or van is to be measured clockwise from the forward longitudinal axis of the truck. This value is equal to the algebraic difference between the heading angles of the two vehicles.)

_____ degrees -- Code to nearest ten degrees.
___(999) Unknown

37 38 39



LAMPS, REFLECTORS, AND LUMINOUS TAPE OR PAINT WORKSHEET

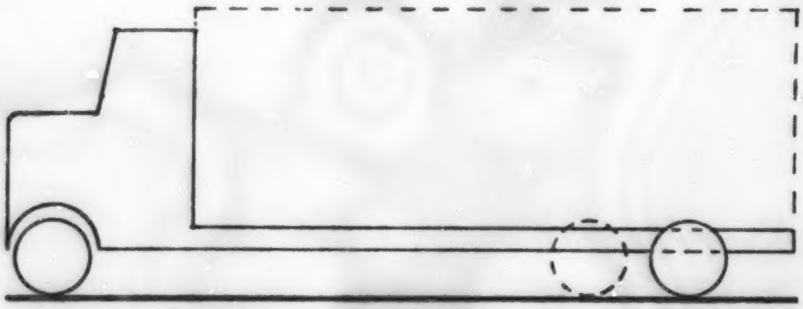
Complete the most appropriate diagram (straight truck or trailer) by sketching in the left, right, and rear of the cargo box area or trailer. Place within the completed sketch the location of all lamps, reflectors, and luminous tape or paint. For purposes of uniformity use the symbols indicated below. The rear view is to be used for both straight trucks and trailers.

SYMBOLS:

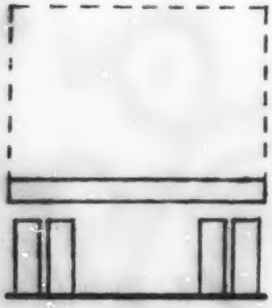
Lamp ○ Paint ▮

Reflector ● Tape ▨

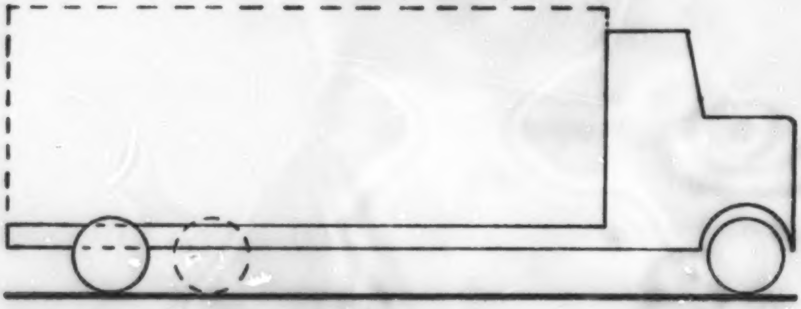
STRAIGHT TRUCK LEFT VIEW



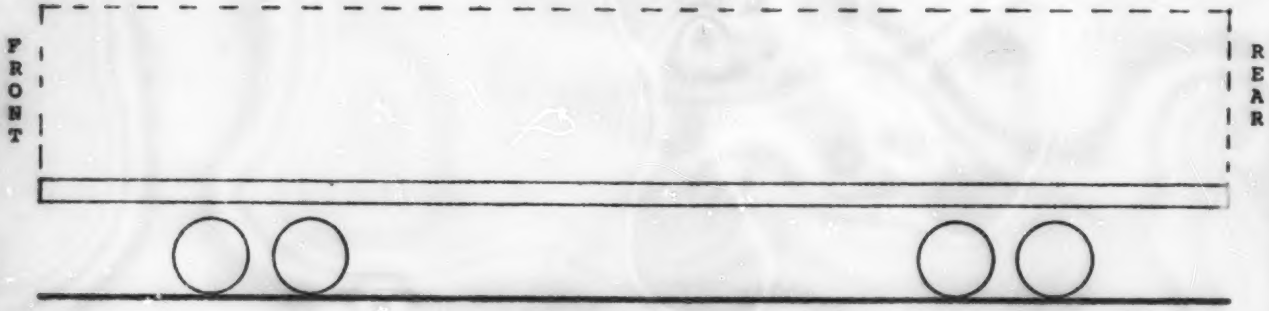
STRAIGHT TRUCK OR TRAILER REAR VIEW



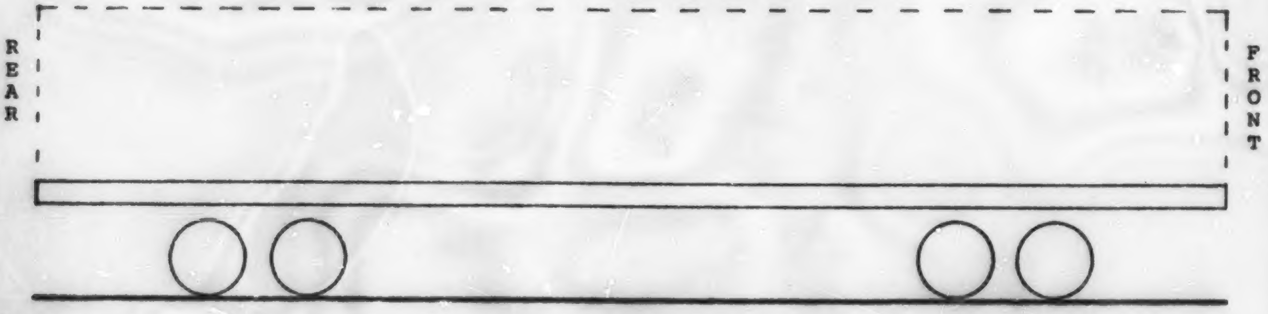
STRAIGHT TRUCK RIGHT VIEW



TRAILER LEFT VIEW



TRAILER RIGHT VIEW



Truck Lamps
(NOTE: All lamps, reflectors, and luminous tape or paint should be clearly marked on the appropriate vehicle sketch located on the reverse side of the preceeding page.)

28.	29.	
Side	Rear	
----	----	
___	___	(1) Present, lighted at time of crash
___	___	(2) Lighted, but obscured
___	___	(3) Present, not lighted at time of crash
___	___	(4) Present, unknown if lighted at time of crash
___	___	(5) Not present
___	___	(9) Unknown if present

S R
-- --
40 41

30. Truck Tape or Paint
(NOTE: Reports presence of luminous tape or paint on cargo box area or trailer.)
___(1) Yes - on truck rear
___(2) Yes - on truck side
___(3) Yes - on both truck side & rear
___(4) No
___(9) Unknown

42

31. Impact Point on Cargo Box Area or Trailer
(NOTE: The sketch of the impact is shown on the VEHICLE FORM - page 2.)
___(1) Rear
___(2) Right side
___(3) Left side
___(9) Unknown

43

32. Height of Bottom of Cargo Box Area or Trailer Above Ground At Point Where Vehicle Contact was Made -[H]

______ inches -- Code actual value.
___(99) Unknown

44 45

33. Width [W] (Rear) or Length [L] (Side) of Cargo Box Area or Trailer

______ inches -- Code actual value.
___(999) Unknown

46 47 48

34. Distance from Cargo Box Area or Trailer Edge to Wheel [D]
[NOTE: For rear impacts code the distance (precollision) from the back of the last wheel to the rear edge of the cargo box area or trailer. For side impacts code the distance (precollision) from the wheel nearest the impact point (or at the impact point if impacted) to the cargo box area's or trailer's side edge.]

______ inches -- Code actual value.
___(97) 97 inches or greater
___(99) Unknown

49 50

35. Contact with Wheels of Cargo Box Area or Trailer

Rear Impacts:
___(00) No wheels contacted
___(01) Right wheel(s)
___(02) Left wheel(s)
___(03) Both right and left wheels
___(99) Unknown

Side Impacts:
[NOTE: Wheels are numbered consecutively from 01 beginning at the rear. At most only two wheels (on different axles) can be coded as contacted. If necessary choose the first two contacted.]

If Single Wheel	If Multiple Wheels
---------------	------------------
___(01) 1st	___(12) 1st & 2nd
___(02) 2nd	___(23) 2nd & 3rd
___(03) 3rd	___(34) 3rd & 4th
___(04) 4th	___(45) 4th & 5th
___(05) 5th	___(56) 5th & 6th
___(06) 6th	___(67) 6th & 7th
___(07) 7th or greater	___(77) 7th or greater & greater than 7th
___(00) No wheels contacted	___(99) Unknown

51 52

36. Contact with Axle Members of Cargo Box Area or Trailer
(NOTE: Axle member is defined as that portion between the inside of the inner most wheels.)

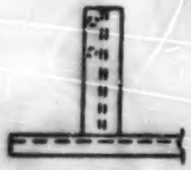
Rear Impacts:
___(00) No axles contacted
___(01) Right side
___(02) Left side
___(03) Central area
___(04) Entire (i.e., greater than 50%)
___(99) Unknown

Side Impacts:
[NOTE: Axles are numbered consecutively from 01 beginning at the rear. At most only two different axles can be coded as contacted. If necessary choose the first two contacted.]

If Single Axle	If Multiple Axles
--------------	-----------------
___(01) 1st	___(12) 1st & 2nd
___(02) 2nd	___(23) 2nd & 3rd
___(03) 3rd	___(34) 3rd & 4th
___(04) 4th	___(45) 4th & 5th
___(05) 5th	___(56) 5th & 6th
___(06) 6th	___(67) 6th & 7th
___(07) 7th or greater	___(77) 7th or greater & greater than 7th
___(00) No axles contacted	___(99) Unknown

53 54

NATIONAL ACCIDENT SAMPLING SYSTEM -- GUARD CONFIGURATION TYPE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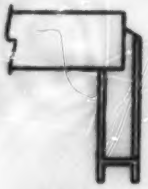
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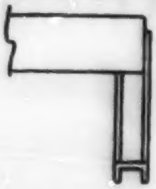
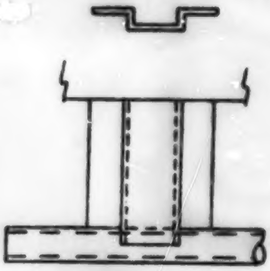

DESIGN C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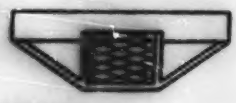
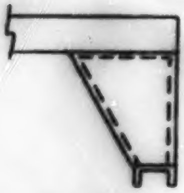
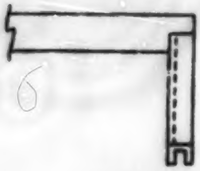

DESIGN E WITH OR WITHOUT PLATE


DESIGN F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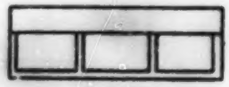
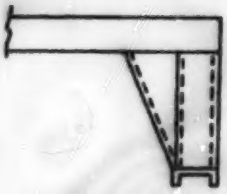
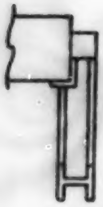
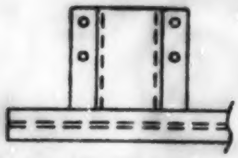
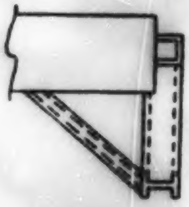
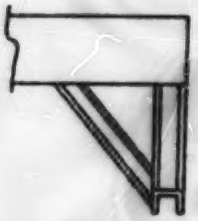

DESIGN H


DESIGN J


DESIGN K


DESIGN L


DESIGN M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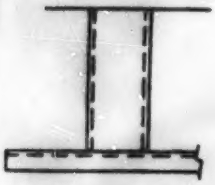
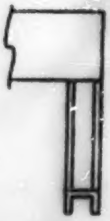

DESIGN O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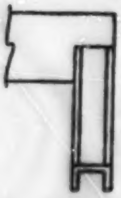
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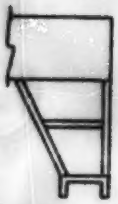

DESIGN S

Sketch of guard *BEFORE* impact:
Also: Sketch of guard not shown above.

Indicate Configuration: _____, Other ___ (✓)

Sketch of guard *AFTER* impact:

37. Magnitude of Underride: Deepest Penetration [P]
(NOTE: The penetration is measured perpendicular to the cargo box area or trailer at the point of impact.)

_____ inches -- Code actual value.
___(00) No penetration
___(97) 97 inches or greater
___(99) Unknown

55 56

38. Underride Guard: Presence

___(1) Yes, continue
___(2) Guard not present (NOTE: If no guard was present this concludes the form. Code "Not Applicable" for the remaining questions.)
___(9) Unknown if guard present (NOTE: If the guards presence is unknown, then code "Unknown" for the remaining questions.)

57

39. Underride Guard: Material

___(1) Steel
___(2) Aluminum
___(3) Other: ______________________
___(8) Not applicable
___(9) Unknown

58

40. Underride Guard: Type

___(1) Rigid
___(2) Energy absorbing (e.g. hydraulic)
___(8) Not applicable
___(9) Unknown

59

41. Guard Configuration Type
(NOTE: Choose the configuration which best represents that which was present. See reverse side of preceeding page for configurations.)

___(01) Type A
___(02) Type B
___(03) Type C
___(04) Type D
___(05) Type E
___(06) Type F
___(07) Type G
___(08) Type H
___(09) Type J
___(98) Not applicable
___(10) Type K
___(11) Type L
___(12) Type M
___(13) Type N
___(14) Type O
___(15) Type P
___(16) Type R
___(17) Type S
___(18) Other type
___(99) Unknown

60 61

42. Contact of Underride Guard

___(1) Yes
___(2) No
___(8) Not applicable
___(9) Unknown

62

43. Guard Height Above Ground [H(G)]

_____ inches -- Code actual value.
___(98) Not applicable
___(99) Unknown

63 64

44. Guard Width [W(G)]

_____ inches -- Code actual value.
___(98) Not applicable
___(99) Unknown

65 66

45. Guard Clearance Front Wheel (Side) or Left Side (Rear) [L(G)]

_____ inches -- Code actual value.
___(97) 97 inches or greater
___(98) Not applicable
___(99) Unknown

67 68

46. Guard Clearance Rear Wheel (Side) or Right Side (Rear) [R(G)]

_____ inches -- Code actual value.
___(97) 97 inches or greater
___(98) Not applicable
___(99) Unknown

69 70

(NOTE: Sketch underride guard on reverse side of preceeding page both before and after impact.)

47. Guard Attachment Location

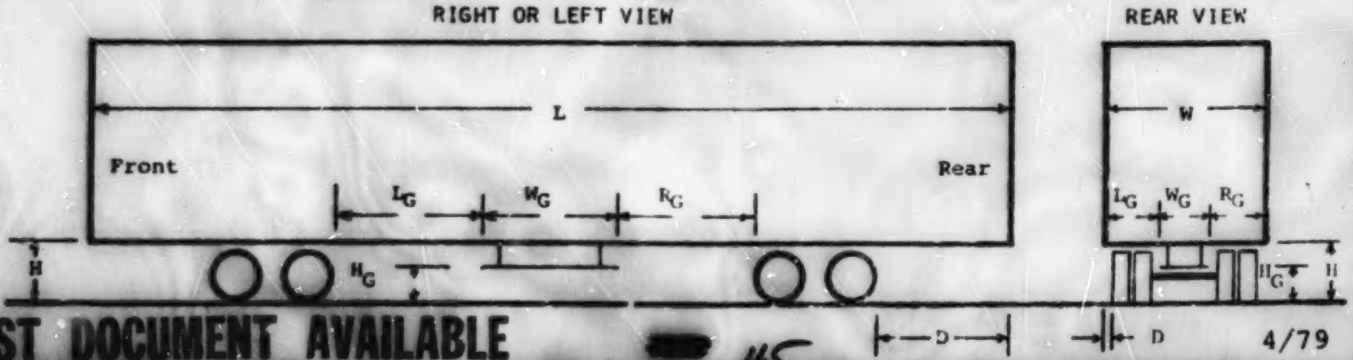
___(1) Attached to frame
___(2) Attached to body member
___(3) Attached to frame and body
___(8) Not applicable
___(9) Unknown

71

48. Guard Attachment Mechanism

___(1) Bolted
___(2) Welded
___(3) Bolted and welded
___(8) Not applicable
___(9) Unknown

72



BEST DOCUMENT AVAILABLE

115

TRUCK UNDERRIDE STUDY: VEHICLE LOG

COMPLETED BY TEAM

Duplicate columns 1 through 6 from the first page of this form.

Record Number 1 1 (7, 8)

Card Number 1 (9)

Duplicate columns 12 and 13 from the first page of this form in col(s) 10 and 11.

Investigator's Initials ___ ___ ___ (12, 13, 14)

- _ - Not in error, not to be updated, and not missing
- 1 - To be updated
- 2 - Error (not correctable)
- 3 - Error (correctable)
- 4 - Questionable
- 5 - Updated and corrected
- 6 - Sequencing error in CDC's or injury data
- 7 - Error incorrectly noted
- 8 - Data entry in error
- 9 - Unknown coded on field form

COMPLETED BY ZONE CENTER

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Response	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Variable	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Response	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62

NATIONAL CRASH SEVERITY STUDY

DEPARTMENT OF TRANSPORTATION
National Highway Traffic
Safety Administration

OCCUPANT FORM

Form Approved:
O.M.B. No. 004-R-5723

1. Primary Sampling Unit Number ___ ___ (1, 2)

2. Case Number 0 ___ ___ ___ (3, 4, 5, 6)

3. Record Number 5 (7)

4. Transaction Code ___ (8)

5. Version Number 2 (9)

IDENTIFICATION

6. Vehicle Number ___ ___ (10, 11)

7. Occupant Number ___ ___ (12, 13)

OCCUPANT INTERVIEW

8. Occupant's Age

______ year(s) -- Code actual age at time of accident.
___(00) Less than one year old
___(97) 97 years and older
___(99) Unknown

___ ___ (14, 15)

9. Occupant's Sex

___(1) Male
___(2) Female
___(9) Unknown

___ (16)

10. Occupant's Height

______ inches -- Code actual height to the nearest inch.
___(99) Unknown

___ ___ (17, 18)

11. Occupant's Weight

______ pounds -- Code actual weight to the nearest pound.
___(999) Unknown

___ ___ ___ (19, 20, 21)

12. Occupant's Role

___(1) Driver
___(2) Passenger
___(9) Unknown

___ (22)

13. Occupant's Seat Position

___(01) Front seat-left side
___(02) Front seat-middle
___(03) Front seat-right side
___(04) Second seat-left side
___(05) Second seat-middle
___(06) Second seat-right side
___(07) Third seat-left side
___(08) Third seat-middle
___(09) Third seat-right side
___(10) Front seat-additional passenger
___(11) Second seat or beyond-additional passenger
___(12) Truck-tractor sleeping section
___(13) Other enclosed area: ______
___(14) In or on unenclosed area area type: ______
___(15) In or on trailing unit unit type: ______
___(99) Unknown

___ ___ (23, 24)

(NOTE: INVESTIGATOR as used below refers to the product of individual observation, police reports, and any other sources used that culminated in the assessment which represents the final opinion of the investigator.)

14. Entrapment
(NOTE: Entrapped means that part of the occupant was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

Interviewee		Investigator	
___	(1) Not entrapped	___	C
___	(2) Entrapped	___	O
___	(8) Not applicable	___	D
___	(9) Unknown	___	E

V4 (36, 37)

___ (25)

(NOTE: Motorcyclists cannot be either entrapped or ejected.)

15. Ejection

___	(1) None	___	
___	(2) Partial ejection	___	
___	(3) Complete ejection	___	C
___	(4) Ejection, unknown degree	___	O D
___	(8) Not applicable	___	E
___	(9) Unknown	___	

V4 (35) V5

___ (26)

This report is authorized by P.L. 89-563, Title 1, Sections 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

5/79

EST DOCUMENT AVAILABLE

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16. Ejection Area

Interviewee		Investigator
___	(01) Windshield	___
___	(02) Left front	___
___	(03) Right front	___
___	(04) Left rear	___
___	(05) Right rear	___
___	(06) Rear	___
___	(07) Roof (convertible or sun roof)	___
___	(08) Other area (e.g., sidecar, back of pickup, etc.): ___________	___
___	(98) Not applicable	___
___	(99) Unknown	___

CODE

27 28

17. Ejection Medium

Interviewee		Investigator
___	(01) Door	___
___	(02) Open roof structure	___
___	(03) Fixed windows	___
	Operable windows	
___	(04) Roll down type	___
___	(05) Hinged type	___
___	(06) Sliding type	___
___	(07) Other type: ___________	___
___	(08) Other medium: ___________	___
___	(98) Not applicable	___
___	(99) Unknown	___

CODE

29 30

V5

18. Medium Status

Interviewee		Investigator
___	(1) Open	
___	(2) Separation	___
___	(3) Closed, closed when damaged	___
___	(8) Not applicable	___
___	(9) Unknown	___

CODE

31

V5

19. Treatment - Mortality

Interviewee		Official Sources
___	(1) Fatal	___
	Nonfatal	
___	(2) Hospitalization	___
___	(3) Transported and released	___
___	(4) Treatment-other: ___________	___
___	(5) No treatment	___
___	(9) Unknown	___

CODE

32

COMMENTS:

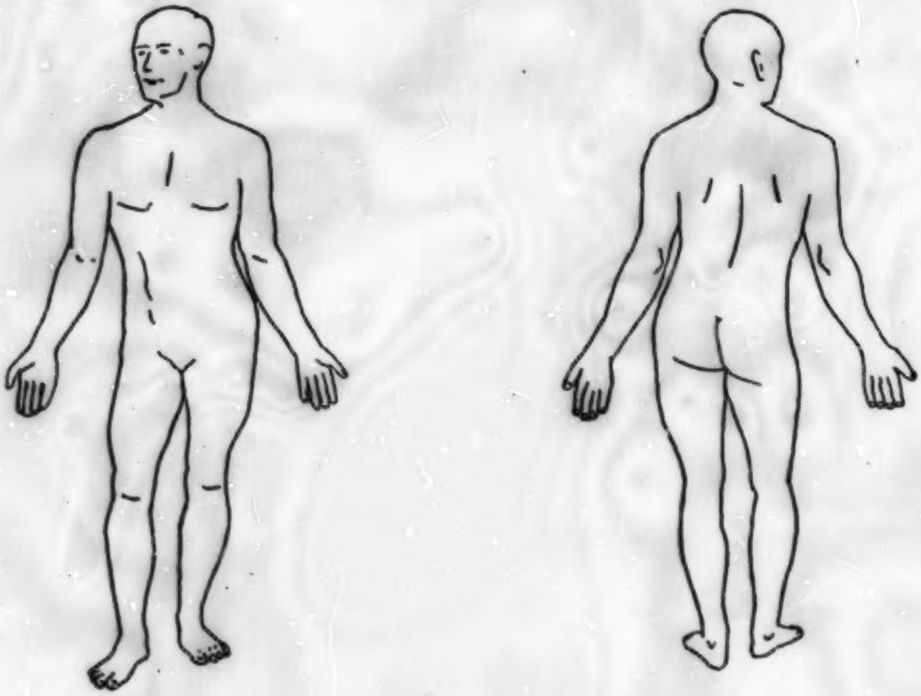
5/79

EST DOCUMENT AVAILABLE

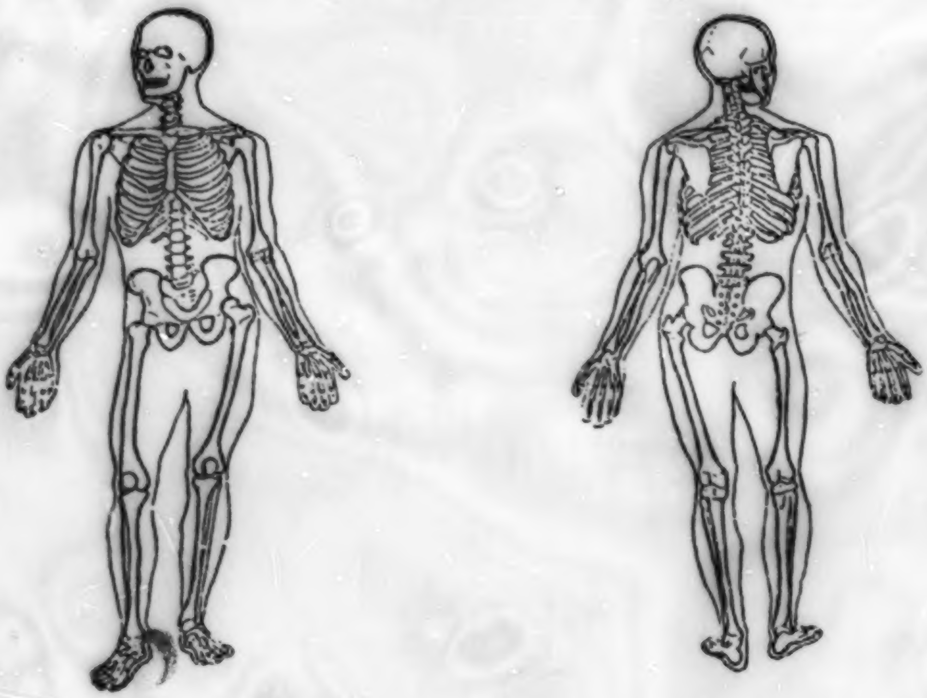
INTERVIEWEE INJURY DATA

Indicate the *Nature*, *Location*, and injury *Source* of all injuries

Soft Tissue Injuries



Skeletal Injuries



Collection Section

Interviewee ------ Official Sources ---------

20. Hospital Stay

____ day(s) -- Code the number of days (up to 30) that the occupant stayed in hospital. ____

___ (31) 31 days or more ___
___ (98) Not applicable (e.g., D.O.A.) ___
___ (99) Unknown ___

CODE

33 34

21. Working Days Lost

____ day(s) -- Code the number of days (up to 30) that the occupant lost from work due to the accident.

___ (31) 31 days or more
___ (98) Not applicable (e.g., D.O.A.)
___ (99) Unknown

35 36

22. *This variable deleted in this version* 9

37

Interviewee ------ Investigator -------

23. Active Restraint System - Availability

___ (1) None ___
___ (2) Lap belt and shoulder harness ___
___ (3) Lap belt ___
___ (4) Shoulder harness ___
___ (5) Helmet ___
___ (6) Child safety seat ___
___ (7) Other restraint: ________ ___
___ (9) Unknown ___

CODE

38

24. Active Restraint System - Use

___ (1) None (includes unavailability) ___
___ (2) Lap belt and shoulder harness ___
___ (3) Lap belt ___
___ (4) Shoulder harness ___
___ (5) Helmet ___
___ (6) Child safety seat - in proper use ___
___ (7) Other restraint used ___
___ (9) Unknown ___

CODE

39

Interviewee ------ Investigator -------

25. Passive Restraint System

___ (1) None Available ___
___ (2) Air bag - deployed ___
___ (3) Air bag - did not deploy ___
___ (4) Passive belt ___
___ (5) Other restraint: ________ ___
___ (9) Unknown ___

CODE

V5

40

26. Passive Restraint Defeated

___ (1) No (includes unavailability) ___

Yes

___ (2) Passive belt not worn ___
___ (3) Air bag disconnected ___
___ (4) Air bag not reinstalled ___
___ (5) Other restraint ___
___ (9) Unknown ___

CODE

V5

41

27. Relation of Interviewee to Occupant

___ (1) No interview
___ (2) Same person
___ (3) Other accident involved person: ________

Uninvolved Person

___ (4) Relative or friend
___ (5) Other uninvolved person: ________

Combination of Persons

___ (6) One of which was accident involved
___ (7) None of which were accident involved
___ (9) Unknown

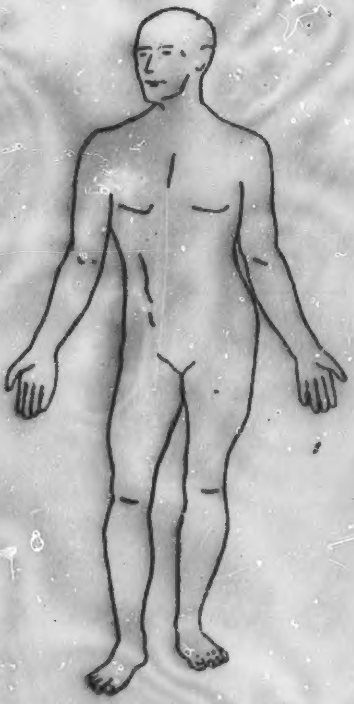
42

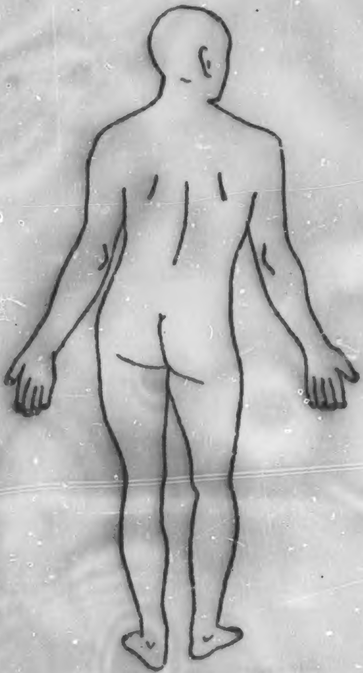
THIS COMPLETES THE INTERVIEW

OFFICIAL INJURY DATA

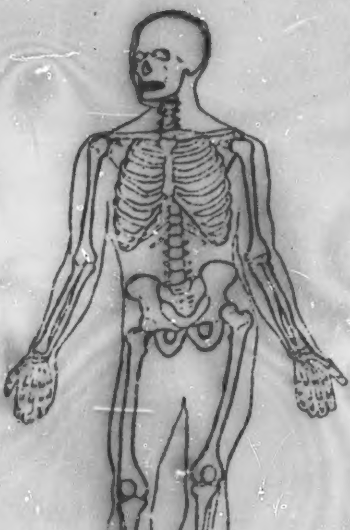
Indicate the *Nature* and *Location* of *All* injuries.

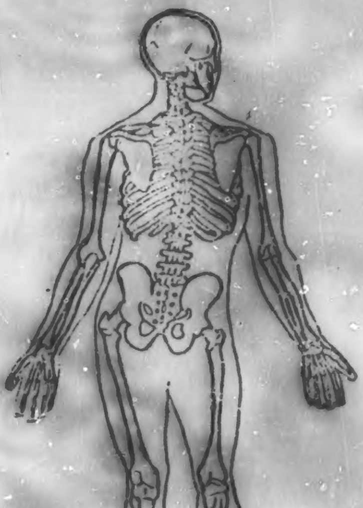
Soft Tissue Injuries





Skeletal Injuries





Collection Section

NATIONAL CRASH SEVERITY STUDY -- VALID O.I.C. COMBINATIONS

SUB-TABLE: VALID: BODY REGION, ASPECT -- CODE COMBINATIONS

BODY REGION		ASPECTS
HEAD	H	R, L, B, P, S, I, W
FACE	F	R, L, B, C, S, I, W
NECK	N	R, L, B, A, P, W
SHOULDER	S	R, L, B
UPPER EXTREMITIES	X, A, E, R, W	R, L, B
LOWER EXTREMITIES	Y, T, K, L, Q	R, L, B
CHEST	C	R, L, B, C, W
ABDOMEN	M	R, L, B, C, S, I, W
BACK	B	S, I, W
PELVIC-HIP	P	R, L, A, P, W
WHOLE BODY	O	R, L, A, P, S, I, W

ASPECT CODES	
R	RIGHT
L	LEFT
B	BILATERAL
C	CENTRAL
A	ANTERIOR
P	POSTERIOR
S	SUPERIOR
I	INFERIOR
W	WHOLE REGION
U	UNKNOWN

MASTER TABLE: VALID: SYSTEM/ORGAN, LESION ASPECT, BODY REGION -- CODED COMBINATIONS

SYSTEM/ORGAN:		LESION:	ASPECT:	BODY REGION:
SKELETAL SYSTEM				
GENERAL	S	C, F, N, O	*	ALL, EXCEPT H
TEETH	S	F, V, O	I	F
VERTEBRAE	V	C, F, S, D, N, O	*	N, B, P
JOINTS	J	C, F, S, D, N, O	*	F, P, S, W, E, Q, K
LIGAMENTS	J	L, C, S, O	*	S, W, E, Q, K
DIGESTIVE SYSTEM				
GENERAL	D	L, C, A, H, V, R, B, O	*	F, N, M, C
LIVER	L	L, C, A, F, H, V, R, B, O	R, S	M
NERVOUS SYSTEM				
GENERAL	N	L, C, V, B, O	*	ALL, EXCEPT H
BRAIN	B	L, C, K, H, V, R, B, O	*	H
SPINAL CORD	C	L, C, H, V, R, B, O	*	H, N, B, P
EARS	E	L, C, A, H, V, R, D, B, O	R, L, B	H
EYES	E	L, C, A, H, V, R, B, O	R, L, B	F
CARDIOVASCULAR SYSTEM				
ARTERIES, VEINS	A	L, H, V, R, B, O	*	ANY REGION
HEART	H	L, C, H, R, B, O	C	C
SPLEEN	Q	L, C, F, H, R, B, O	L	M
UROGENITAL SYSTEM				
GENERAL	G	L, C, A, H, V, B, O	I	M
KIDNEYS	K	L, C, A, F, H, V, R, B, O	R, L, B	M
BLADDER	G	L, C, A, R, B, O	I	M
RESPIRATORY SYSTEM				
DIAPHRAGM	R	L, C, F, V, R, O	S	M
NOSE	R	L, C, A, F, H, V, B, X, O	C	F
TRACHEA	R	L, C, A, F, V, D, B, X, O	A	N
WINDPIPE	R	L, C, F, R, B, X, O	C	C
LUNGS	P	L, C, H, V, R, B, O	R, L, B	C
MUSCLES	M	L, C, P, V, R, B, O	*	ANY REGION
SKIN	I	L, C, A, V, B, O	*	ANY REGION
ALL SYSTEMS IN REGION	W W W	N, M, B, O N, B, O B, O	*	N, S, X, A, E, R, W, Y, T, K, L, O H, C, M, O F, B, P

U - UNKNOWN IS VALID IN ANY POSITION IN ANY COMBINATION.

* - SEE SUB-TABLE FOR VALID ASPECT CODES IN EACH BODY REGION.

BEST DOCUMENT AVAILABLE

OCCUPANT INJURY CLASSIFICATION

Consider all injuries which are reported from both unofficial and official sources. The information from official sources takes precedence over similar injuries reported by any other source. In other words, do not list the same injury twice; supercede the interview data with official data in the case of similar injuries. List all injuries by official medical sources first. Police reported injuries may be used, but only when no other source of injury information is available.

Were more than ten (10) injuries sustained? ___ Unknown, ___ No, ___ Yes -- If more than ten dissimilar injuries were identified during the interview, from collection of official data, and from other unofficial sources (excluding police), list those from the official records first, exhausting that level of data before listing those from the interviewee or other sources.

	I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System/ Organ	A.I.S. Severity	Injury Source	Source of Data
1	__	__	__	__	__	__	__ __	__
2	__	__	__	__	__	__	__ __	__
3	__	__	__	__	__	__	__ __	__
4	__	__	__	__	__	__	__ __	__
5	__	__	__	__	__	__	__ __	__
6	__	__	__	__	__	__	__ __	__
7	__	__	__	__	__	__	__ __	__
8	__	__	__	__	__	__	__ __	__
9	__	__	__	__	__	__	__ __	__
10	__	__	__	__	__	__	__ __	__

Source of Data

Official
(1) Autopsy records with or without hospital/ medical records
(2) Hospital/medical records without autopsy records
(3) Treating physician
Unofficial
(4) Interviewee
(5) E.M.S. personnel
(6) Police
(7) Other source: ____________
(8) Not applicable
(9) Unknown

Reduction Section

I.S.S. Body Region

(1) Head or neck
(2) Face
(3) Chest
(4) Abdominal or pelvic contents
(5) Extremities or pelvic girdle
(6) General (external)
(8) Not applicable
(9) Unknown

O.I.C. Body Region

(H) Head - skull
(F) Face
(N) Neck - cervical spine
(S) Shoulder
(X) Upper extremities (arm)
(A) Arm (upper)
(E) Elbow
(R) Forearm
(W) Wrist - hand
(C) Chest
(M) Abdomen
(B) Back - thoracolumbar spine
(P) Pelvic - hip
(Y) Lower extremities (leg)
(T) Thigh
(K) Knee
(L) Leg (lower)
(Q) Ankle - foot
(O) Whole body
(U) Injured, unknown region
(8) Not applicable
(9) Unknown if injured

Aspect of Injury

(R) Right
(L) Left
(B) Bilateral
(C) Central
(A) Anterior - front
(P) Posterior - back
(S) Superior - upper
(I) Inferior - lower
(W) Whole region
(U) Injured, unknown aspect
(8) Not applicable
(9) Unknown if injured

Lesion

(L) Laceration
(C) Contusion
(A) Abrasions
(F) Fractures
(P) Pain
(K) Concussion
(H) Hemorrhage
(V) Avulsion
(R) Rupture
(S) Sprains
(D) Dislocations
(N) Crushing
(M) Amputation
(B) Burn
(X) Asphyxia
(O) Other
(U) Injured, unknown lesion
(8) Not applicable
(9) Unknown if injured

System/Organ

(S) Skeletal
(V) Vertebrae
(J) Joints
(D) Digestive
(L) Liver
(N) Nervous system
(B) Brain
(C) Spinal cord
(E) Eyes - ears
(A) Arteries - veins
(H) Heart
(Q) Spleen
(G) Urogenital
(K) Kidneys
(R) Respiratory
(P) Pulmonary - lungs
(M) Muscles
(I) Integumentary
(W) All systems in region
(U) Injured, unknown system
(8) Not applicable
(9) Unknown if injured

Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Severe injury
(4) Serious injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity
(8) Not applicable
(9) Unknown if injured

BEST DOCUMENT AVAILABLE

Injury Source

FRONT
(01) Windshield
(02) Mirror
(03) Steering assembly, including transmission selector level when column mounted
(04) Add-on equipment (e.g., CB, tape deck, air conditioner)
(05) Instrument panel and below, excluding foot controls and parking brake
(09) Other front object

SIDE
(11) Side interior surface, excluding hardware or armrests
(12) Side hardware or armrests
(13) Roof pillar supports
(14) Window glass or frame
(19) Other side object

INTERIOR
(21) Seat, back support
(22) Belt restraint system
(23) Head restraint
(24) Air cushion
(25) Other occupants
(26) Interior loose objects
(29) Other interior object

ROOF
(31) Front header
(32) Rear header
(33) Roof side rails
(34) Roof or convertible top

FLOOR
(41) Floor
(42) Floor or console mounted transmission lever, including console
(43) Parking brake handle
(44) Foot controls including parking brake

REAR
(51) Backlight (rear window)
(52) Backlight storage rack, door, etc.
(59) Other rear objects

EXTERIOR of OCCUPANT'S VEHICLE
(61) Hood
(62) Outside hardware (e.g., outside mirror, antenna)
(63) Other exterior surface or tires
(69) Unknown exterior objects

EXTERIOR of OTHER MOTOR VEHICLE
(71) Bumper
(72) Hood edge
(73) Other front of vehicle
(74) Hood
(75) Hood ornament
(76) Windshield, roof rail, A-pillar
(77) Side surface
(78) Side mirrors
(79) Other side protrusions
(80) Rear surface
(81) Undercarriage

OTHER VEHICLE or OBJECT in the ENVIRONMENT
(86) Ground
(87) Other vehicle or object
(89) Unknown vehicle or object

NONCONTACT INJURY
(90) Noncontact injury source (impact force)

(97) Injured, unknown source
(98) Not applicable
(99) Unknown if injured

OCCUPANT INJURY CLASSIFICATION

If there are six or less injuries listed in the O.I.C. reduction section, code all of the injuries ordered by Source of Data (1st-autopsy, 2nd-hospital/medical, 3rd-treating physician, or 4th-interviewee and other sources) and by A.I.S. severity within source.

If there are more than six injuries order the injuries by source and by A.I.S. severity within source. Code this ordering, injury by injury. If a group of ordered injuries has the same source, the same A.I.S., and the group includes at least the sixth and seventh injuries in the ordering, then a choice must be made as to which injury or injuries to code.

Choose the injury or injuries that will enable the maximum number of different I.S.S. body regions to be represented in the coded data. If no new I.S.S. body region can be added, then simply code in accordance with the original ordering.

If the occupant has less than six injuries, then the number of rows required to be completed is equal to the number of injuries plus one (e.g., no injuries requires one row i.e., columns 43 to 50). In the additional row "not applicable" will be coded for all variables including A.I.S. severity. In essence, "not applicable" means "no injury".

Update Candidate: ○ *Yes* ○ *No*

	I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System/ Organ	A.I.S. Severity	Injury Source	Source of Data
1ST	__	28. __ 43	29. __ 44	30. __ 45	31. __ 46	32. __ 47	33. __ __ 48 49	34. __ 50
2ND	__	35. __ 51	36. __ 52	37. __ 53	38. __ 54	39. __ 55	40. __ __ 56 57	41. __ 58
3RD	__	42. __ 59	43. __ 60	44. __ 61	45. __ 62	46. __ 63	47. __ __ 64 65	48. __ 66
4TH	__	49. __ 67	50. __ 68	51. __ 69	52. __ 70	53. __ 71	54. __ __ 72 73	55. __ 74
5TH	__	56. __ 75	57. __ 76	58. __ 77	59. __ 78	60. __ 79	61. __ __ 80 81	62. __ 82
6TH	__	63. __ 83	64. __ 84	65. __ 85	66. __ 86	67. __ 87	68. __ __ 88 89	69. __ 90

Coding Section

RESPONSES

MANNER

(1) Telephone
(2) Personal visit to home, work, etc.
(3) Letter (questionnaire)
(4) Other [specify]

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

RESULT

(01) No answer (to phone call, no one home, etc.)
(02) Other person at home, work, etc.--interviewee to contact investigator
(03) Other person at home, work, etc.--investigator to repeat call, visit, leave questionnaire, or try elsewhere
(04) Must obtain permission of attorney or insurance company
(05) Attorney or insurance company refused permission
(06) Refused interview for other than on advice of attorney or insurance company [specify or write "unknown reason"]

____

(07) Attorney or insurance company provided permission
(08) No return of letter (questionnaire)
(09) Partial or complete interview
(10) Other [specify]

a. ____________________

b. ____________________

c. ____________________

d. ____________________

e. ____________________

f. ____________________

g. ____________________

h. ____________________

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70. Injury Severity (Police Rating)

___(1) K - Killed
___(2) A - Incapacitating injury
___(3) B - Nonincapacitating injury
___(4) C - Possible injury
___(5) O - No injury
___(9) Unknown

_ 91

If any of the coded Injury Sources have "other" codes, i.e. 09, 19, 29, 59, 63, or 87; describe the injury source below in the space provided. Clearly indicate each description by numerical value.

COMMENTS:

ATTACH TO THIS FORM ANY SUPPORTING MEDICAL DOCUMENTATION FOR THIS OCCUPANT

5/79

BEST DOCUMENT AVAILABLE

NATIONAL CRASH SEVERITY STUDY

OCCUPANT LOG

COMPLETED BY TEAM

Duplicate columns 1 through 8 from the first page of this form.

Card Number 1 (9)

Duplicate columns 10 through 13 from the first page of this form.

INTERVIEW CONTACT RECORD

Contact Sequence	Month	Day	Year	Time of Contact	Contacting Investigator	Manner	Result
1ST	14 15	16 17	7 9 18 19	20 21 22 23	24 25 26	27	28 29
2ND	30 31	32 33	7 9 34 35	36 37 38 39	40 41 42	43	44 45
3RD	46 47	48 49	7 9 50 51	52 53 54 55	56 57 58	59	60 61
4TH	62 63	64 65	7 9 66 67	68 69 70 71	72 73 74	75	76 77
GO TO 2 (9) 5TH	10 11	12 13	7 9 14 15	16 17 18 19	20 21 22	23	24 25
6TH	26 27	28 29	7 9 30 31	32 33 34 35	36 37 38	39	40 41
7TH	42 43	44 45	7 9 46 47	48 49 50 51	52 53 54	55	56 57
8TH	58 59	60 61	7 9 62 63	64 65 66 67	68 69 70	71	72 73
GO TO 3 (9) 9TH	10 11	12 13	7 9 14 15	16 17 18 19	20 21 22	23	24 25

COMMENTS:

For responses to Manner and Result see back of page 7.

Date decision was made not to further attempt to obtain a direct or surrogate interview regarding the general data elements (variables 008 through 027). __ __ __ __ 7 9 (26 27 28 29 30 31)

Mark Appropriate Box

Deciding Person (Initials) __ __ __ (32 33 34)

☐ (1) Official medical injury data received before first submission.

☐ (2) Official medical injury data inapplicable (no medically diagnosed treatment).

☐ (3) Official medical injury data applicable but not obtainable.

Reason: ____________

☐ (4) Official medical injury data requested but not received at time of case submission.

__ (35)

Date Occupant Injury Classification (O.I.C.), page 7, completed. __ __ __ __ 7 9 (36 37 38 39 40 41)

Completing Person (Initials). NOTE: This task is applicable even if only 8s, 9s, 98s, or 99s are the codes used. __ __ __ (42 43 44)

COMPLETED BY ZONE CENTER

- _-Not in error, not to be updated, and not missing
- 1-To be updated
- 2-Error (not correctable)
- 3-Error (correctable)
- 4-Questionable
- 5-Updated and corrected
- 6-Sequencing error in CDC's or injury data
- 7-Error incorrectly noted
- 8-Data entry in error
- 9-Unknown coded on field form

NOTE: DUPLICATE COLUMNS 1 THROUGH 8 AND GO TO CARD: 4 (9).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	[redacted]	23	24	25
Response	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	[redacted]	32	33	34
Variable	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Response	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
Variable	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
Response	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79					

NATIONAL ACCIDENT SAMPLING SYSTEM — SPECIAL STUDIES SUBSYSTEM

SPECIAL STUDIES OCCUPANT FORM UPDATE RECORD

Three (3) of the special studies require the ability to integrate official medical information which is received after the case has been initially submitted. This form is designed to supplement the existing OCCUPANT FORM UPDATE RECORD. Indicate [by checking (✓)] below each of the special studies that apply to the vehicle in which this person was an occupant. For each of the indicated studies copy from the applicable special study record all of the information requested on this form. The injury information requested in each of these studies is linked to one of the injury rows on the CSS OCCUPANT FORM. There is a good chance that a medical update will alter the existing injury information recorded on any given row; therefore, this update record is required to keep accurate the links between the special studies and this persons injuries.

THIS SECTION MUST BE COMPLETED PRIOR TO INITIAL CASE SUBMISSION

Please Mark: ☐ Motorcycle Form: OR Occupant Supplement ☐ Roof Intrusion Form and/or ☐ Side Intrusion Form

P. S. U. Number	__ __ 1 2	__ __ 1 2	__ __ 1 2
Case Number	__ __ __ __ 3 4 5 6	__ __ __ __ 3 4 5 6	__ __ __ __ 3 4 5 6
Special Study Number	0 1	0 5	0 4
Record Number	5	3	3
Card Number		1	1
Vehicle Number	__ __ 10 11	__ __ 11 12	__ __ 11 12
Occupant Number	__ __ 12 13	____	____

OCCUPANT'S NAME: Sanitize Later

L ____________

F ____________

M ____________

Age: __ __

Sex: __

Treatment - Mortality: __

INITIAL Motorcycle Occupant Contact Points

	1st-19.	2nd-20.	3rd-21.	4th-22.	5th-23.	6th-24.
Injury Source	__ __	__ __	__ __	__ __	__ __	__ __

UPDATED Motorcycle Occupant Contact Points

	1st-19.	2nd-20.	3rd-21.	4th-22.	5th-23.	6th-24.
Injury Source	__ __ 27 28	__ __ 29 30	__ __ 31 32	__ __ 33 34	__ __ 35 36	__ __ 37 38

INITIAL Roof Intrusion: Column H

Associated Injury-CSS Row Number 43.__ 51.__ 59.__ 67.__ 75.__ 83.__

UPDATED Roof Intrusion: Column H

Associated Injury-CSS Row Number 43.__ 53 51.__ 64 59.__ 75 67.__ 21 75.__ 32 83.__ 43

INITAL Side Intrusion: Columns H and I

Associated Injury #1. CSS Row No 69.__ 78.__ 87.__ 96.__ 105.__ 114.__ 123.__ 132.__ 141.__ 150.__ 159.__ 168.__

Associated Injury #2. CSS Row No 70.__ 79.__ 88.__ 97.__ 106.__ 115.__ 124.__ 133.__ 142.__ 151.__ 160.__ 169.__

UPDATED Side Intrusion: Columns H and I

Associated Injury #1. CSS Row No 69.__ 22 78.__ 35 87.__ 48 96.__ 61 105.__ 74 114.__ 22 123.__ 35 132.__ 48 141.__ 61 150.__ 74 159.__ 22 168.__ 35

Associated Injury #2. CSS Row No 70.__ 23 79.__ 36 88.__ 49 97.__ 62 106.__ 75 115.__ 23 124.__ 36 133.__ 49 142.__ 62 151.__ 75 160.__ 23 169.__ 36

ATTACH THIS FORM TO THE OCCUPANT FORM UPDATE RECORD D-110 4/79

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BEST DOCUMENT AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM

CONTINUOUS SAMPLING SUBSYSTEM

CRASH PROGRAM SUMMARY

This form presents the CRASH Program summary information for traffic units numbered:

First Vehicle (Veh #1) ____

Second Vehicle (Veh #2) ____

Primary Sampling Unit Number __ __

Case Number __ __ __ __

Common Impact Number __ __

2. VEHICLE SIZE?

Veh #1 ___

Veh #2 ___

COLLISION DEFORMATION CLASSIFICATION

3. Veh #1 __ __-__ __ __ __-__

4. Veh #2 __ __-__ __ __ __-__

5. KNOWLEDGE of Vehicle WEIGHTS?

___ No - skip to 8.
___ Yes:

6. Veh #1 __ __ __ __

7. Veh #2 __ __ __ __

8. KNOWLEDGE of REST and IMPACT POSITIONS?

___ No - go to 37. -- Damage Dimensions
___ Yes:

9. REST Veh #1 X __ __ __.__
Y __ __ __.__
ψ __ __ __.__
Veh #2 X __ __ __.__
Y __ __ __.__
ψ __ __ __.__

10. IMPACT Veh #1 X __ __ __.__
Y __ __ __.__
ψ __ __ __.__
Veh #2 X __ __ __.__
Y __ __ __.__
ψ __ __ __.__

11. Did Vehicle One SLIDE SIDEWAYS?

___ No - skip to 14.
___ Yes:

12. Did rotation cease prior to final rest?

___ No - skip to 14.
___ Yes:

13. Location X __ __ __.__
Y __ __ __.__
ψ __ __ __.__

14. Was Vehicle One's PATH CURVED?

___ No - skip to 16.
___ Yes:

15. Point on Path X __ __ __.__
Y __ __ __.__

16. Did Vehicle One ROTATE?

___ None - skip to 18.
___ Clockwise:
___ Counterclockwise:

17. More than 360 degrees?

___ No
___ Yes

18. Did Vehicle Two SLIDE SIDEWAYS?

___ No - skip to 21.
___ Yes:

19. Did rotation cease prior to final rest?

___ No - skip to 21.
___ Yes:

20. Location X __ __ __.__
Y __ __ __.__
ψ __ __ __.__

21. Was Vehicle Two's PATH CURVED?

___ No - skip to 23.
___ Yes:

22. Point on Path X __ __ __.__
Y __ __ __.__

23. Did Vehicle Two ROTATE?

___ None - skip to 25.
___ Clockwise:
___ Counterclockwise:

24. More than 360 degrees

___ No
___ Yes

25. COEFFICIENT of FRICTION? __.__ __

26. ROLLING RESISTANCE? [Option (1) or (2)]

(1) Proportion of Braking Each Wheel

27. Veh #1 RF __.__ __
LF __.__ __
RR __.__ __
LR __.__ __

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28. Veh #2 RF ___.___ ___
LF ___.___ ___
RR ___.___ ___
LR ___.___ ___

OR

(2) Longitudinal Deceleration

29. Veh #1 ___.___ ___

30. Veh #2 ___.___ ___

31. TRAJECTORY SIMULATION?

___ No - skip to 37.
___ Yes: Steer Angles?

32. Veh #1 RF ___ ___
LF ___ ___
RR ___ ___
LR ___ ___

33. Veh #2 RF ___ ___
LF ___ ___
RR ___ ___
LR ___ ___

34. TERRAIN BOUNDARY?

___ No - skip to 37.
___ Yes: Boundary Points?

35. XBP1 ___ ___ ___.___
YBP1 ___ ___ ___.___
XBP2 ___ ___ ___.___
YBP2 ___ ___ ___.___

36. SECONDARY FRICTION COEFFICIENT? ___.___ ___

37. Are DAMAGE DIMENSIONS Known?

___ No - skip to 52.
___ Yes: Dimensions in Inches

38. Side damage
41. End damage Veh #1 L ___ ___ ___.___

39. Side damage
42. End damage C_1 ___ ___ ___.___
C_2 ___ ___ ___.___
C_3 ___ ___ ___.___
C_4 ___ ___ ___.___
C_5 ___ ___ ___.___
C_6 + ___ ___ ___.___

40. Side damage
43. End damage D - ___ ___ ___.___

44. Side damage
47. End damage Veh #2 L ___ ___ ___.___

45. Side damage
48. End damage C_1 ___ ___ ___.___
C_2 ___ ___ ___.___
C_3 ___ ___ ___.___
C_4 ___ ___ ___.___
C_5 ___ ___ ___.___
C_6 + ___ ___ ___.___

46. Side damage
49. End damage D - ___ ___ ___.___

52. IMPROVED FORCE DIRECTIONS?

___ No - PROGRAM COMPLETED!
___ Yes: Angles from Straight

53. Veh #1 + - ___ ___ ___ ___

54. Veh #2 + - ___ ___ ___ ___

If this Common Impact was with a Motor Vehicle *Not In Transport*, fill in the information below.

Model Year: ____________ Make: ____________

Curb Weight: ____________ lbs Model: ____________

The CDC, crush profile (C_1 through C_6), and trajectory measurements for this vehicle should be recorded above.

COMPLETE and ATTACH the appropriate schematic (Vehicle Form - page 2) to this Form.

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BEST DOCUMENT AVAILABLE